

August 11, 1986

Chemical Reporter

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Functional Monomers

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CMR MARKET INDEX

CHEMICAL MARKETING	August 8, 1986	151.43
REPORTER's market index of	August 1, 1986	152.47
chemicals and related materials	July 11, 1986	152.54
(100=1974 average), based on	August 9, 1986	153.28
97 key commercial chemicals		
appears alongside with data for		
two weeks ago, last month and		
last year		

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CHEMICAL MARKETING

TALL OIL: Hercules and Reichhold multi-
tall oil and products
VAN: Pricing could firm up in wake of OPEC
agreement
PHENOL: Price advance falters despite strong
market
GUAR GUM: Supplies have dwindled, but bal-
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Chemical Reporter

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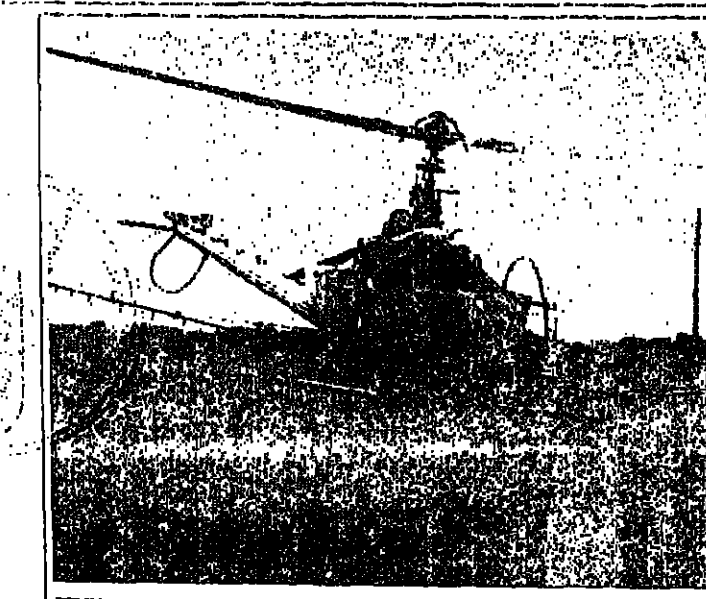


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FIFRA Through Senate

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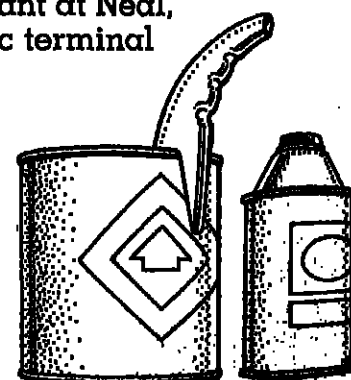
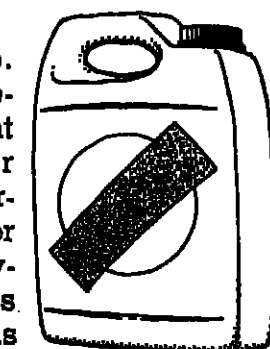
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Drug Regulation User Fees Backed

With the Gramm-Rudman-Hollings balanced budget law resulting in a prospective cut of some \$26 million from the Food & Drug Administration budget, Sen. Orrin Hatch (R-Utah), is sponsoring legislation that would shore up funding for the agency's drug approval process.

The Hatch bill would require the Secretary of Health & Human Services to establish fees for the review of applications for marketing approval of human drugs, antibiotics and biological products.

"The functions of FDA are vital to the health of our citizens," says Sen. Hatch, chairman of the Senate Labor & Human Resources Committee.

"To carry out its legislative mandate, FDA must maintain sophisticated laboratories, a corps of scientific and health professionals, and numerous field officers who inspect manufacturing and processing facilities and monitor compliance with the law at the local level. Significant cuts in the funds devoted to these duties carry significant risks for our people," says the senator.

The most predictable risk, says Sen. Hatch, is the lengthening of the "already unconscionably long" period of time which a new drug must spend in FDA review.

This would result in "needless suffering on the part of those who will benefit from new drug therapies which often avoid far more costly forms of treatment," says Sen. Hatch.

The time period for approval could take up to an additional two and a half years if funding for the approval process is cut, he warns.

Under provisions of the New Drug Application Fee Amendments of 1986, HHS would assign appropriate

fees for the application for review of a new drug, antibiotic or biological product.

The bill states that these fees would be used only for costs connected with carrying out the approval activity. HHS would also have the option to waive or reduce the fees in cases where the public interest would be served.

Exempted from the bill are Abbreviated New Drug Applications (generic drugs) and investigational new drug exemptions which do not result in a new drug application.

"Since the manufacturer is the primary economic beneficiary of an approved drug application, it is only logical that the cost of the approval process be part of the manufacturer's investment," says Sen. Hatch.

"This should bridge the Gramm-Rudman-Hollings gap while making the drug approval process self-supporting."

The House recently voted to appropriate \$437 million for FDA in fiscal 1987.

Carbide Discloses Suspect In Its Bhopal Investigation

Union Carbide Corporation's disclosure last week that it has narrowed the focus of its Bhopal investigation to a "disgruntled" plant worker set off a heated exchange between representatives of the company and the Indian government, which is expected to file suit against Carbide by the end of this month in civil court in India.

"Our investigations to date demonstrate that the Bhopal tragedy was a deliberate act," Carbide said in a statement last week. "Those investigations are now focusing on a specific individual employee of the Bhopal plant who was disgruntled, and who had ample opportunity to deliberately inject the large amount of water into the (methyl isocyanate) storage tank which caused the massive gas release."

Some 2,000 people were killed and thousands more injured by the release of poisonous MIC gas from the Bhopal plant on December 2-3, 1984.

Carbide has long held the position that the leak could only have resulted from a "deliberate act," but last week marked the first time Carbide has said it has an actual suspect.

The company declined to comment on published reports that the worker had been demoted a week before the gas leak and was at the MIC unit on the night of the accident without management authorization. The worker, who is Indian, had been assigned to the MIC unit, a Carbide spokesman said.

Carbide would not say how long the individual has been a suspect, or whether he was one of the eye witnesses Carbide investigators interviewed immediately after the gas leak.

Carbide's disclosure last week fits a scenario constructed by Carbide chairman Warren Anderson at a press conference called by the company in March 1985 to announce the results of its initial Bhopal investigation (CMR, 3/25/85, pg. 3).

At that time, Carbide said the introduction of a large amount of water in MIC storage tank 610 started the runaway chemical reaction that led to the fatal gas leak. While Mr. Anderson said the company had not been able to determine how water entered the tank, he suggested that a disgruntled worker might have deliberately connected a water line to the tank.

For its part, the Indian government dismissed Carbide's disgruntled worker theory last week. "They have been harping on sabotage from the beginning," said Talmiz Ahmad, the Indian consul in New York. "It may be just a ploy," he added. "They haven't offered a shred of evidence."

Despite acknowledged safety violations at the Bhopal plant, a proven act of sabotage would be an "important factor for the court to weigh" in determining the degree of Carbide's culpability, a Carbide spokesman noted last week.

Carbide is said to be still holding out hope for a negotiated settlement, and some observers see last week's disclosure of a suspect as a sign of progress.

Continued on Page 24

Toxic Waste Dump in Missouri Seen Worse Than Love Canal

Congress was warned last week that toxic waste contamination at an idled chemical processing plant in a rural Missouri community would "wipe out that entire town."

Philip E. Badame, president of Environmental Technology Inc., told the House Government Operations environment subcommittee, "If you think Love Canal was bad, it is worse out there."

The panel, chaired by Rep. Mike Synar (D-Okla.), held a hearing to examine Environmental Protection Agency's administration of the Toxic Substances Control Act. TSCA is expected to be revised by Congress next year.

Mr. Badame said his company considered cleaning up the wastes at the plant, the Martha C. Rose Chemicals factory, in Holden, Mo., a town of 2,200 people, located 40 miles east of Kansas City.

He attributed the problem largely to poor regulation and lack of enforcement by EPA's regional office in Kansas City.

"That is a time bomb out there. If there is ever a fire at the Holden facility, the dust that will be given off from the combustion of

the PCP oil will wipe out that entire town," said Mr. Badame.

The plant ceased operations last March and the company is the subject of bankruptcy proceedings by creditors. From 1982, the plant processed and disposed of materials contaminated with PCB's.

The chemicals, suspected of causing cancer and birth defects, are heat-resistant compounds used mainly as coolants in transformers, capacitors and other electrical equipment.

Lawmakers were told that an estimated 15 to 20 million pounds of PCB's were still stored at the plant, and cleaning them up could cost at least \$20 million and take up to two years.

EPA regional administrator Morris Kay conceded there was extensive contamination at the plant but said regulators had properly monitored the operation.

EPA inspectors found record-keeping problems and other violations at the plant since 1983. The agency levied fines, and the company agreed to correct the problems, he said.

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FIFRA Finally Gets Through the Senate

Sweeping legislation designed to reauthorize and update the Federal law regulating the sale and use of pesticides was unanimously approved by the Senate Agriculture Committee last week.

Lawmakers and congressional aides said the strong vote sending the measure to the full Senate adds momentum to a determined effort by Congress to pass amendments to the Federal Insecticide, Fungicide & Rodenticide Act this year.

The House Agriculture Committee approved its version of the bill June 18, and the House Rules Committee met Friday to clear the way for floor consideration next month. The Senate is also expected to vote on FIFRA in September.

While both bills would speed up the sluggish process of pesticide reviews by Environmental Protection Agency, the Senate measure would also extend patent life for agricultural chemicals and limit the ability of states to impose stricter standards for pesticide residues on food than those of the Federal government.

"This bill puts an end to years of controversy on a number of issues," said Sen. Jesse Helms (R-N.C.), chairman of the Senate Agriculture Committee.

"After many long hours of negotiation and modification, the FIFRA law will now better address itself to the problems farmers encounter in modern-day agriculture," said Sen. Helms. "The bill is a workable compromise that will benefit producers, consumers, manufacturers, environmentalists, and others affected by the use of pesticides."

If Congress is able to complete work on FIFRA before it adjourns for the year in early October, it would represent the first comprehensive rewrite of the law in 14 years.

Progress has been hindered by a persistent dispute between the chemical industry and environmentalists, a logjam broken this year when the two sides finally worked out compromises on the primary issues in the bill.

The Senate committee adopted most of the major provisions of the House bill, but several major amendments were added.

Most significantly, the panel approved an amendment by Sen. Edward Zorinsky (D-Neb.) to extend the patent life of pesticide

products, a top legislative priority of the National Agricultural Chemicals Association.

The amendment represents a negotiated compromise between an organization of 11 major chemical companies that conduct basic research and development work on pesticides, and the Pesticide Producers Association, a group representing small to medium size pesticide companies that seek to market generic products.

Under the agreement, the patents of a pesticide subject to regulatory review procedures at EPA may be extended for a term equal to the time lost during the review up to a maximum of five years.

In addition, it would not be considered a patent infringement to conduct tests on a registered pesticide receiving a patent term

Continued on Page 21



PESTICIDE LIFTOFF: Legislation passed by Senate adds momentum to determined move in Congress. Here a helicopter delivers herbicides.

Hazardous Waste Regulation Tightened Up by US Agency

Under new guidelines issued by Environmental Protection Agency, US exporters of hazardous waste must have prior written consent from foreign nations scheduled to receive the waste, or shipment cannot take place. The new requirement, effective November 8, is contained in final regulations issued by the agency last week as called for in the Resource Conservation & Recovery Act, the Federal hazardous waste management law. Under the regulations, exporters must notify EPA in advance of intended shipments. EPA and the State Department will coordinate to provide notification to the receiving country.

Notification will also be provided to any country through which the waste will pass in transit to the receiving country. EPA will then notify the exporter of the country's response.

"This regulation will for the first time ensure that the receiving country has consented to receive the hazardous waste," says EPA Administrator Lee M. Thomas. He says the rule will prevent international transportation of waste to countries that do not want the waste, while giving countries willing to accept the materials an opportunity to manage it safely.

The US Customs Service official at the point of departure will collect a copy of the required manifest which accompanies the shipment. This will allow EPA to work with Customs to monitor and spot-check exports.

In addition, the agency says exporters must file exception reports and submit an annual report summarizing hazardous waste exports.

EPA says exporters should notify the agency at least 60 days before shipment.

Degussa Acquires Precious Metal Firm

Degussa Corporation last week said it completed the purchase of Metz Metallurgical Corporation in South Plainfield, N.J. Metz will be a wholly owned subsidiary of Degussa but with its own Board of Directors and officers.

Metz is a 65-year old company well established in the manufacture of precious metal products. Metz produces precious metal powders, flakes, salts and solutions for the electronic, photographic, chemical, pharmaceutical and automotive industries and metallurgical products such as brazing and electrical contact alloys. Metz also refines precious metals.

The Metz plant and support facilities are located on a 10-acre parcel in South Plainfield, N.J., and employs 210 people.



Paul J. Johnston, who has been named vice-president and general manager of the Coatings Resins Department of Union Carbide. He was previously general manager in the company's Coatings Materials Division.

Plastics in Ocean: Pollution on the Rise

Up to 150,000 tons a year of plastics are dumped into the world's oceans by the fishing industry alone, Society of Plastics Industry says. Merchant vessels, boats, beachgoers and refuse from sewage treatment facilities also contribute thousands of tons per year.

SPI president C.E. O'Connell told the House Merchant Marine Subcommittee on Coast Guard & Navigation that the plastics industry wants to help solve the problem of plastics pollution in the seas. "We are committed to reducing the likelihood of plastics pellets finding their way into the marine environment, increasing the level of plastics recycling and educating decision-makers and the public about the options for properly disposing of all municipal waste," he declared.

He also said the US should ratify a convention conceived in the early 1970's that provides for the prevention of pollution from ships. This so-called "Marpo" convention would prohibit the dumping of garbage, including plastics, from ships.

PPG Is Expanding Taiwan Silica Unit

PPG Industries, Inc. will increase the capacity of its precipitated silica operation in Taiwan by more than 50 percent, bringing the plant's capacity up to 20,000 metric tons per year.

The expansion, due on stream October 1, will allow the company to meet growing demand for its line of silicas in Japan, Taiwan and Southeast Asian markets, the company says.

PPG recently launched three other significant chemicals projects in the Far East — a licensing agreement to provide technology and equipment for China's first commercial silicas plant, a joint venture chlorine-caustic soda manufacturing project with China Petrochemical Development Corporation in Taiwan, and an agreement with Tokyo-based Nippon Oil & Fats Co. to pursue specialty chemical projects in Japan.

The silica plant is operated by PPG Industries Taiwan Ltd., a joint venture formed in 1983 by PPG and local Taiwan investors. PPG has majority interest in the operation.

Pesticides May Hurt The Immune System

According to a Canadian study, exposure to certain pesticides may weaken the immune system, resulting in increased susceptibility to infection.

A research group from the University of Quebec, Montreal presented findings at the Sixth International Congress of Pesticide Chemistry recently which indicate that eight commonly-used pesticides, among them dieldrin, carbaryl and aminocarb may damage the mammalian immune system.

In laboratory tests, the compounds were found to cause a decline of from 50 to 80 percent in the immune system responses of laboratory animals given doses 10 to 20 times higher than normal environmental levels of the pesticides.

Dr. Michel Fournier, professor in the university's biological sciences department, says that the compounds seem to act by disrupting microphages, the white blood cells that alert the rest of the immune system to bacterial or viral invasion.



Donald V. Borst, who has been appointed to the position of president of SCM Industries, a division of Hanson Industries, the US arm of Hanson Trust PLC.

Nematocide Wins Approval For Testing

Unocal Chemicals Division has gained Federal permission for limited marketing of a pesticide to control nematodes, the tiny parasites that infest roots of various food crops grown throughout the world. In the US alone, crop loss from nematodes is estimated at \$4 billion per year.

According to its developers, the most attractive feature of the nematocide is its ecological compatibility. Unlike other effective nematocides in current use, the new product, code named GY-81, which is shielded by several patents, was designed to pose no risk of contamination to ground water or the plants it protects.

"It was designed for use on growing plants and to be environmentally acceptable," says Dr. Don C. Young, who is primarily responsible for the original chemistry of the product at Unocal's Fred L. Hartley Research Center in Brea, Calif.

Magnesium Projects Expected in Canada

Construction of two new magnesium plants with a combined annual capacity of 100,000 metric tons is expected to proceed in Canada, with the result that several US plants could be forced to close.

Fred Fletcher, director of the Chase Econometrics Metals & Materials Group in Balta Cynwyd, Pa., says provincial officials are offering attractive terms for the projects in an effort to attract new industry.

Plants have been proposed by Magnesium Company of Canada Ltd., majority owned by Aluminum Company of America, and by Norsk Hydro As.

It is expected that the new Canadian plants would depress magnesium pricing in North America and possibly force the closing of several higher-cost plants.

Groundwater Guides Issued by US Agency

Environmental Protection Agency is issuing guidance for determining groundwater vulnerability at hazardous waste facilities regulated under the Resource Conservation & Recovery Act, the Federal hazardous waste management disposal law.

The guidance provides RCRA permit writers the technical criteria to evaluate hydrogeologic data submitted in permit applications for hazardous waste land-based treatment, storage and disposal facilities.

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George C. Scott

Plastics Margins Getting Better, Chevron Says

The commodity plastic resin business is entering a period of improving profit margins, spurred by tightening supply-demand balances, and lower feedstock costs, according to a senior official of Chevron Chemical Company, a producer of polyethylenes and polystyrenes.

George T. Scott, vice-president of the Olefins and Derivatives Division at Chevron Chemical told a group of trade editors in New York last week that reduced costs for the major plastics increased their competitiveness against natural products such as paper, metal and glass, which in turn will attract capital for new facilities as they are needed.

Mr. Scott painted a fairly rosy demand picture for high-density polyethylene, polypropylene, and polystyrene this year, by estimating that all three were running 6.5 to 7.5 percent ahead of year earlier levels on an annualized basis. Only low density PE, plagued by high inventories earlier in the year, is showing sluggish growth.

Despite a flurry of new capacity in Canada, Saudi Arabia and elsewhere, coupled with intense competition from linear low density polyethylene, Mr. Scott says he's

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Trade Secrets Get Protection Under New Bill

The House Government Operations Committee has approved a bill that would provide businesses greater trade secret protection under the Freedom of Information Act.

The legislation, which is strongly supported by the chemical and pharmaceutical industries, was approved on a 30-8 roll call vote.

Under the bill, sponsored by Rep. Glenn English (D-Okla.) companies would be required to claim an exemption from FOIA disclosure when they supply the sensitive information to the government.

If a third party requests the information, the government would have to notify the company, and the firm would have ten days to object. The agency would have another ten days to decide whether to release the business records and to notify the company of its decision.

Under present law, the government alone decides what constitutes trade secrets and exempts that material from FOIA's disclosure requirements. Federal agencies are not required to notify a business when another party is seeking its records.

Disinfectant Problems Cited on Capitol Hill; CSMA's Engel Rebutts

Thousands of patients are dying from infections they catch in hospitals using ineffective disinfectants, but the government laboratory that once tested disinfectants has been closed, two senators say.

Sens. Paul Sarbanes (D-Md.) and Albert Gore (D-Tenn.) charged that studies show such deaths are the result of the hospitals use of disinfectants and antiseptics that fail to kill germs.

Sen. Sarbanes, in opening hearings on the issue, cited Public Health Service estimates that infections acquired in hospitals cause more than 20,000 deaths and contribute to another 60,000 every year.

Disinfectants used in hospitals, Sen. Sarbanes noted, were formerly tested at a laboratory operated by Environmental Protection Agency in Beltsville, Md. But the laboratory was closed in 1982.

In closing the laboratory, the government "abandoned completely the Federal role in assuring safe and effective hospital disinfectants," Sen. Sarbanes said.

Now, he said, testing is left to manufactur-

ers themselves and to a few states with their own testing programs.

Ralph Engel, president of Chemical Specialties Manufacturers Association, defended the safety of disinfectants and said products that fail a test in one laboratory may pass in another one.

But he said the industry supports legislation proposed by Sen. Gore requiring EPA to resume checking disinfectants and he urged reopening of the Beltsville laboratory outside Washington.

The Gore bill would amend the Federal Insecticide, Fungicide & Rodenticide Act to require EPA to "establish, monitor, and enforce efficacy standards for antimicrobial agents used to control pest microorganisms that pose a threat to human health."

The CSMA president told the Joint Economic subcommittee he supports a strengthened role for EPA as well as a single, Federally-operated testing laboratory, as a way to further improve efficacy testing.

Mr. Engel pointed out that hard surface disinfectants are currently subject to compliance monitoring conducted under EPA

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Antifriction Breakthrough?

A Du Pont majority subsidiary, Synergetics Technologies Inc., has developed a new antifriction coating that reportedly can extend the life of cutting tools from two to ten times and has a potential market in early targeted areas worth hundreds of millions of dollars.

"The market for Synergetics products includes almost anything metal that moves and slides together," Du Pont vice-chairman W.W. Robinson says. "This broad spectrum of commercial applications for Synergetics' technologies includes high-speed metal cutting tools, metal forming tools, automotive gears and power train components, engine parts, military weaponry, pumps, valves and remanufactured products.

In these and other areas, American industry spends as much as \$90 billion annually to fight wear and corrosion. Synergetics will ultimately commercialize its technologies in all of these areas, but for the short term, has targeted metal cutting tools, weaponry, automotive and remanufacturing.

Potential market sizes in these areas could be 10 percent of the coated metal cutting tool area that is predicted to be a \$1.5 billion market by 1991; 20 percent of a \$340 million military weapons coatings market; 5 percent of a \$3 billion coating market potential in the automotive and diesel world market and 30 percent of the \$330 million coating market for the remanufacturing market.

Superfund Money Problem: Congress Seeks a Stopgap

Efforts were underway in Congress late last week to provide short-term funding for the superfund hazardous waste cleanup program, which is running out of money because lawmakers have not completed action on a five-year reauthorization bill.

The House approved an emergency appropriation of \$48 million Friday morning for Environmental Protection Agency to use to keep the program functioning at its current level through September. The Senate was expected to approve the measure later in the day.

The action came after EPA Administrator Lee M. Thomas appealed to Congress Wednesday to provide additional funding before the August recess.

Without more money, Mr. Thomas said he would have to send termination notices to superfund contractors on September 1, and halt work at 76 more waste sites by the end of the month while preparing to phase-down other cleanup projects.

Congressional delay in reauthorizing superfund already has delayed planning or cleanup activities at more than 200 sites around the country, according to EPA.

"This is strictly stopgap funding," said Rep. James J. Florio (D-N.J.), after the short-term extension bill was introduced in the House. "It is in no way a replacement for a

stronger and more effective superfund program.

"This stopgap interim funding should in no way distract our attention from the need for a fully revised program or relieve pressure from the Congress or the Administration to enact a tougher superfund law," Rep. Florio said.

During debate on the House floor before approval of the funding proposal, the New Jersey lawmaker warned, "The crisis will be upon us in September and all of our efforts must remain focused on the fact that it is absolutely essential we have a stronger and expanded superfund before Congress finishes its work this year."

He insisted that restrictions be placed on the way EPA can use the temporary funding so that it is not "squirrelled away" or spent on purposes other than cleaning up toxic waste sites.

Rep. Florio said EPA had intended to use part of the temporary emergency funding for superfund previously approved by Congress to transfer agency employees from one building to another, until Congress discovered the plan.

"The \$48 million in stopgap funding can only be used for cleanup activities," the congressman told his colleagues. "It can only be used to deal with the emergency situation EPA claims exists."

DPT Study Is Initiated By Senator

In response to a 10,000 percent increase in the price of the DPT vaccine over the past four years, Sen. Howard Metzenbaum (D-Ohio) has initiated a General Accounting Office investigation into the price hike by drug companies.

The action follows a charge by a public interest group at a July 25 congressional hearing that DPT manufacturers are making an estimated \$80 million windfall profit from price increases.

Noting that the government pays for half of the 18 million doses of DPT (diphtheria, pertussis, tetanus) vaccine sold by drug companies annually, Sen. Metzenbaum questioned why the vaccine cost 11 cents per dose in 1982 and now costs \$11.40.

"It is the taxpayer and the individual consumer who is footing this bill," said Sen. Metzenbaum. "I want to find out the reasons behind this price increase and why this money is not going into research on safer and less expensive vaccines."

Last May, the two remaining US manufacturers of the DPT vaccine, Lederle Laboratories and Connaught Laboratories, boosted the per dose price of the DPT vaccine from \$4.29 to \$11.40 — a 170 percent price hike.

The drug companies said that \$8 of the total price is necessary to cover the costs of lawsuits brought by parents of children who have been killed or brain damaged by the pertussis (whooping cough) vaccine. Other manufacturers have dropped out of the market altogether, raising the specter of shortages.

In testimony before the House Energy and Commerce health subcommittee, Jeffrey Schwartz, president of Dissatisfied Parents Together, asserted the price hike was unjustified because only a handful of vaccine dam-

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NL Industries Reaches Accord With Sugar Co.

NL Industries, Inc. reached an agreement last week with Amalgamated Sugar Company under which Amalgamated will be permitted to name a majority of NL's board of directors.

Under the agreement, Amalgamated will name five directors to a new and smaller nine-member board. Nine of NL's current thirteen-member board will resign.

In addition, NL has agreed to delay the spin-off of its lucrative chemicals unit and will not pursue its appeal of a ruling in a Federal Court in New York that the company's "poison pill" anti-merger defense is illegal (CMR, 8/11/88, pg. 9).

The agreement effectively gives control of NL to Dallas, Tex. financier Harold C. Simmons, who has been seeking to acquire NL in a hostile takeover during the past two months.

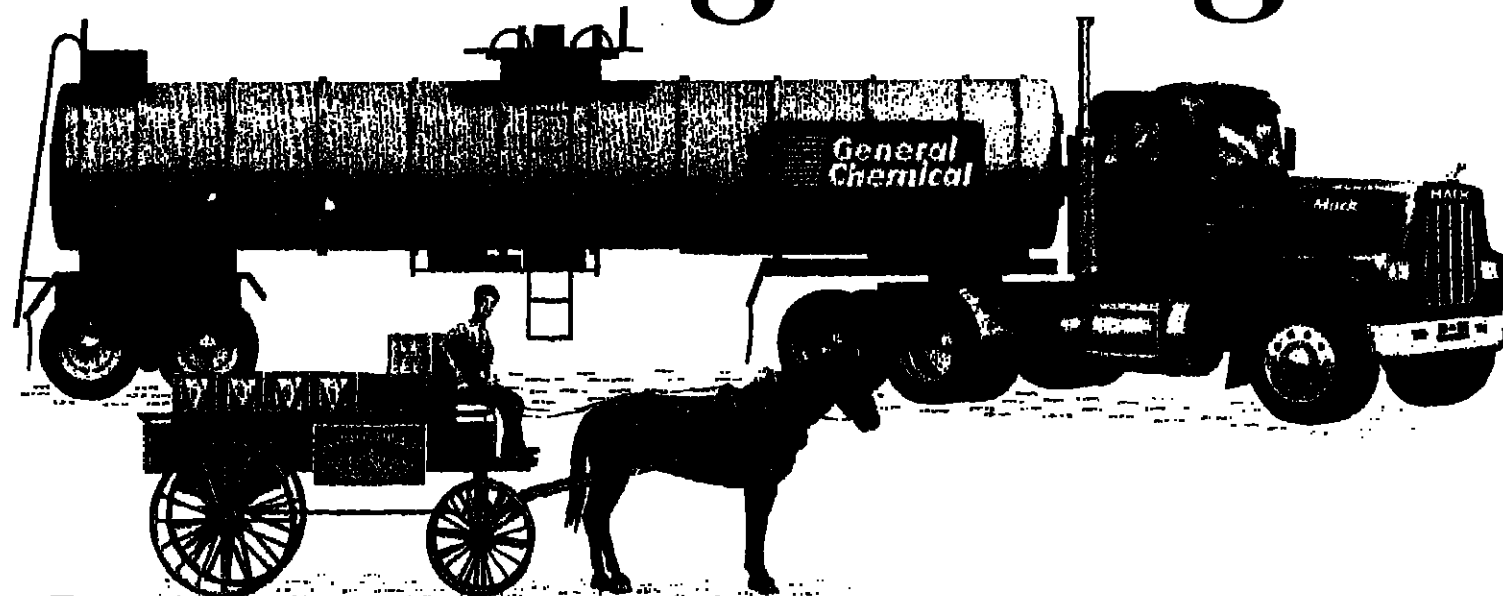
Mr. Simmons and a group of investors have acquired, through NL Investment Corporation, their acquisition corporation, over half of NL's 60 million common shares and 26 percent of depositary receipts outstanding for about \$250 million.

Last week's agreement calls for NL to seek a buyout for the chemicals unit, but specifies that preferred shares issued by the company as part of the spin-off be redeemed for at least \$14 per share.

The chemical unit would thus have a value of at least \$840 million. A sale would have to be approved by the NL board. If the unit is not sold, it will be spun off to shareholders.

Mr. Simmons said he supports the concept of a spin-off of the chemicals unit and expects that it can be effected in a manner that will not result in any significant Federal income tax liability to the company or NL Chemicals.

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Toner Case Accepted

International Trade Commission last week voted 6 to 0 to initiate an investigation to determine whether toner imports by Canon Japan and Canon US are in violation of US antitrust laws.

A complaint filed July 15 by Aunyx Corporation alleges that Canon has unlawfully monopolized the US market for monocomponent toners. (See CMR, 7/21/86, p. 3)

Under section 337 of the Tariff Act of 1930, ITC could initiate an embargo against the offending Canon toners within a year.

Only Canon and Aunyx manufacture a toner usable in Canon's "NP" copier line, but Canon has more than 99 percent of that market, which Aunyx estimates at \$150 million per year.

Meanwhile, Aunyx has filed a \$300 mil-

lion antitrust action against Canon in the US District Court in Boston.

Toner, which is made from resins and pigments, is the dry ink for copiers.

"The unanimous vote of the ITC should send a signal to the Japanese that the US government will not wait until another US industry is destroyed," said Aunyx president Robert Langone.

Asserting that Canon has "competed unfairly to monopolize the US monocomponent toner market," Mr. Langone said, "we intend to use section 337 to obtain an exclusion order and the courts to obtain appropriate money damages."

Bart S. Fisher, an Aunyx attorney, said Canon personnel have coerced Canon dealers into not using the Aunyx product by not delivering the new generation of Canon copier machines to dealers who have purchased Aunyx toners.

ICI Buys Glidden Lines For \$560 Million in Cash

Imperial Chemical Industries, PLC reinforced its position as a leading world paint company last week by agreeing to acquire from Hanson Industries, the US arm of Hanson Trust, the North American paint, coatings, resins and "Macco" adhesives businesses of Glidden for \$580 million in cash.

The businesses were bought by Hanson earlier this year as a division of SCM Corporation. Hanson Trust says that on completion of the agreement with ICI it will have raised nearly \$810 million through the sale of SCM assets for which it paid approximately \$930 million earlier.

SCM continues as a producer of chemicals, including titanium dioxide, and paper and consumer products. The company operates two US TIO₂ plants, a 109,000-short-ton facility at Baltimore, Md. and an 88,000-ton plant at Ashtabula, Ohio. SCM's total world capacity for the white pigment is rated at about 323,000 tons, behind leader E.I. du Pont de Nemours & Co. and British Tioxide, PLC.

ICI says the acquisition makes it the third largest producer in the US coatings and resins industry worth \$9 billion a year. In the year ended June 1986, Glidden had sales of more than \$650 million and pre-tax profits of more than \$80 million, with net assets at book value of approximately \$220 million.

In making the announcement last week,

ICI chairman-elect Denys Henderson said the acquisition would allow ICI to "accelerate dramatically" its expansion in the \$25 billion world paint market.

He says paints, specialty coatings and resins are adding to ICI's resistance to cyclical downturns in chemicals and "they have a strong track record of profitable growth."

Glidden, with headquarters in Cleveland, Ohio, operates 12 manufacturing units and has 4,500 employees in North America. The company distributes paints and related products to paint contractors through 350 company-owned outlets and its retail consumer paints through both independent dealers and retail chains.

In the industrial coatings market, the company is a major factor in can, coil, appliance and powder coatings markets.

Through existing operations, ICI has annual paint sales in group companies and associates of more than \$1.25 billion and manufacturing plants in 26 countries.

The company says its "Dulux" paint brand has 40 percent of the retail market in the UK and over half the color paint sales in value and has increased its retail market share volume from 26 percent to 34 percent in 10 years.

A technical innovation by the company in the retail trade has been development of an almost solid form of emulsion paint and ICI

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L'Air Liquide Commences Cash Offer for Big Three

L'Air Liquide SA, the French industrial gas firm, commenced a \$1.05 billion tender offer for all 36.3 million outstanding shares of Big Three Industries, following an acquisition agreement between the two companies last Tuesday (August 12).

The \$29-per-share offer is being carried out by AAL Acquisition Corporation, a unit of L'Air Liquide.

William Boren, vice-chairman of Houston-based Big Three, said "there will be no consolidation" of Big Three's industrial gas operations and those of Liquid Air Corporation, L'Air Liquide's US subsidiary.

According to Mr. Boren, the French firm has expressed its intention to operate Big Three as a separate unit under the same name and personnel. Mr. Boren says Big Three and Liquid Air will continue to compete against each other in the California, Texas, Louisiana and Florida markets.

According to Mr. Boren, Big Three is the fifth-largest industrial gas concern in the US, behind fourth-ranked Liquid Air.

Although Big Three was not on the selling block, there had been speculation over the past few years that the Smith family, which owns about 8 percent of Big Three's stock, was interested in selling.

Harry K. Smith, chairman of Big Three,

and his brother, Albert K. Smith, co-chairman, decided it was time to sell their stock, and L'Air Liquide "came along and made what was considered a very good offer," Mr. Boren explains. The Smith brothers will both retire their posts at Big Three.

Mr. Boren says other firms had expressed interest in acquiring Big Three, but "no firm offer was made by anybody else" besides L'Air Liquide. It was reported that Union Carbide Corporation had also been a bidder, but Mr. Boren says Carbide never expressed interest in acquiring Big Three.

Big Three's oil field services business has been sagging, along with the market in general, but the company's industrial gas operations are considered strong, especially on the Gulf Coast, where the firm's gas pipelines give it an advantage over competitors.

Big Three, which reported a 15 percent drop in profits in the second quarter, said results in the first half improved slightly to \$24.4 million, or 87 cents a share, as compared with \$23.9 million, or 82 cents a share in the comparable period last year.

L'Air Liquide said last week that its offer is subject to a minimum of 24.5 million shares of Big Three being tendered and not withdrawn prior to the September 11 expiration date. Big Three's board approved the offer and is recommending that Big Three stockholders accept it.

Potash Makers See No Rebound in '87

Potash producers, coming off a fertilizer year in which both North American and export shipments of product fell sharply, see little hope for a turnaround in domestic sales in the 1986-1987 fertilizer year, although exports may pick up enough to offset any further decreases in domestic demand.

Potash production by Canadian and US producers in the fertilizer year ending this past June 30 fell 12.4 percent to 8.4 million short tons, K₂O basis. North American disappearance fell 6.5 percent on the year to 8.8 million tons, K₂O basis, while exports slipped 9.5 percent in 1985-1986 to 2.8 million tons, according to figures provided by Potash & Phosphate Institute.

One bright spot has been a 12 percent decline in inventories during the year, but one producer tempers that statistic by pointing out that stocks did not begin to fall until April at the tail end of the planting season.

Producers have taken extensive downtime this Summer in an attempt to further whittle down inventories. For example, the two largest Canadian producers, Potash Corporation of Saskatchewan and International Minerals & Chemical Corporation, have taken long turnarounds this Summer. PCS closed all its mines from mid-June through the end of July before resuming operations on August 1. An ongoing strike at PCS's Langan, Sask. mine, however has forced PCS to operate there at sharply reduced levels. At

IMC, a company official says large inventories have prompted the company to significantly lengthen its normal Summer turnaround at Esterhazy, Sask. He did not disclose when the mine would reopen.

Even while stocks fall, domestic demand

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David A. Needham, who has been named vice-president for marketing services and director of marketing for resins by Hercules Inc. He will assume responsibility for sales and marketing of organic resins as well as retaining a number of other marketing functions that he already performs.

Ocean Incineration Backed By Congressional Office

Ocean incineration — burning hazardous wastes in incinerators mounted on ocean-going vessels — could be an attractive, though not essential, interim option for managing certain liquid wastes, according to a report released Friday by the Congressional Office of Technology Assessment.

Several waste treatment methods, such as ocean incineration, will be needed to bridge the gap between hazardous waste disposal practices of the past which are being abandoned, such as landfilling, and preferred practices of the future, such as waste reduction, whose capacity is only now developing, according to OTA.

The report, prepared at the request of the Senate Commerce Committee and several House committees, notes that time will be required to implement these preferred practices and they will not be applicable to all wastes.

Last May, the Federal government re-

jected Chemical Waste Management Inc.'s request to burn toxic waste aboard an incinerator ship off the Atlantic Coast.

Lawrence Jensen, Environmental Protection Agency's assistant administrator for water, said the agency backed off its once-enthusiastic support for the experimental technology partly because of public concerns raised by its tentative approval last December of a test mission 155 miles off the coast of Ocean City, Md.

Mr. Jensen said EPA would not license any research burns for at least one year while the agency develops comprehensive ocean incineration regulations.

OTA says ocean incineration is likely to have only a limited effect on incentives to shift preferred management practices, in part because these practices are expected to be applied to nonincinerable wastes for the near future.

It says to ensure that ocean incineration is supplanted by better technologies as they develop.

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Polymer Institute Is Set To Market R&D to Industry

The University of Detroit will operate its first corporate subsidiary, Polymer Technologies, Inc. (PTI), to do research in polymers, some of it under contract to industry.

Dr. Nicholas J. DeGrazia will act as president and chief executive officer of PTI, while continuing to serve in his present capacity as the university's vice-president for finance and its treasurer. Creation of the company will be completed by fall with PTI becoming a wholly owned subsidiary of the university.

PTI will build from the Polymer Institute, a research center founded in 1968 within the University's College of Engineering and Science. The founder and director of the Polymer Institute, Dr. Kurt C. Frisch, will serve as vice-president and director of research in the new firm. Dr. Frisch's specialty is polyurethanes.

Since its founding in 1968, the Polymer Institute has served more than 100 contractual clients including Dow Chemical Corpo-

ration, Quaker Oats Company, Budd Company, Ford Motor Company, General Motors Corporation, and Mitsubishi Chemical Industries. Dutch State Mines (DSM), the U.S. Army and Navy, IBM Corp., Control Data Corp., and Johnson & Johnson Inc. are among its 20 current clients.

Marketing the company to new clients and expanding its research capabilities will be among Dr. DeGrazia's responsibilities as president of PTI.

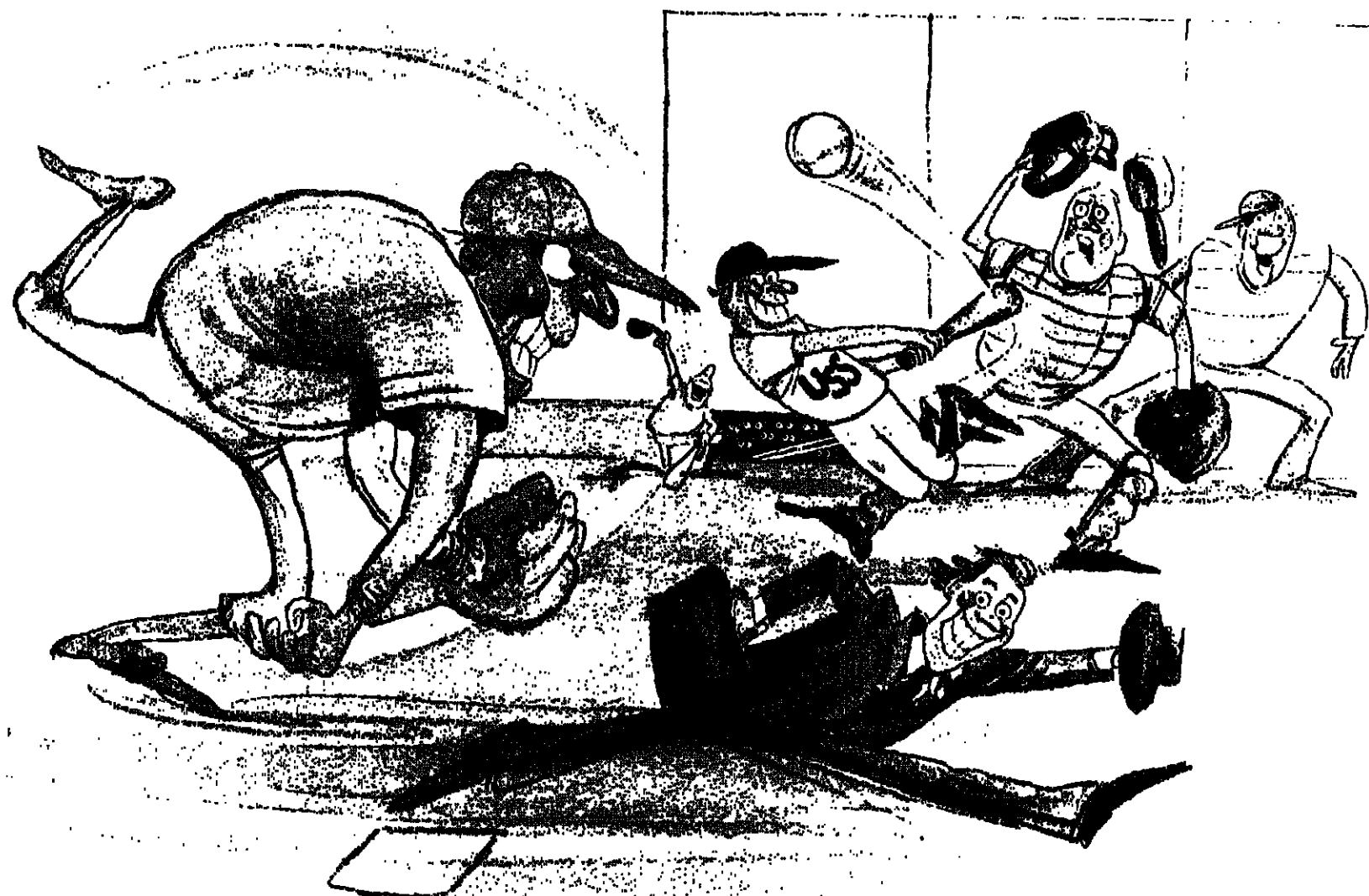
"What is unique about our marketing position," says Dr. DeGrazia, "is we have been in somewhat of a reactive mode for the last five years. Kurt Frisch, who is extremely well known in the scientific and industrial communities, has brought a lot of customers through the door and many of these companies have requested further research activities."

One area that PTI will continue to pursue is humanitarian research for the health field.

It is expected that in the near future PTI will assist the government of India in the

Continued on Page 18

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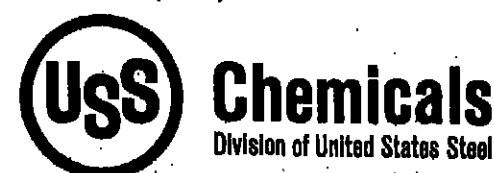
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News Capsules

Denka Starts Expansion

Denka Chemical Corporation has started work on a 20-million-pound expansion of its Houston, Tex., maleic anhydride plant. The project is scheduled for completion in the first quarter of next year and will lift Denka's maleic anhydride capacity to 65 million pounds annually. The increased capacity is necessary to meet projected market growth, anticipated to be in the 4 to 6 percent per year range, Denka says.

Du Pont Cuts Costs

E.I. du Pont de Nemours & Co. says it has cut production costs by 35 percent at one of its major plants through the use of statistical techniques by shop floor workers as a substitute for the traditional inspection method of quality control. Du Pont says effective use of statistical techniques can increase product yield to nearly 100 percent.

Carbide Additive

Union Carbide Corporation says it has developed "Ucaral" FR additives for use in formulating functional plastic building materials with improved fire safety properties. Initial commercialization of products formulated with the additives will be in electrical wire and cable insulation and jacketing, and in electrical conduit for use in shipboard, military, power plant, subway and high-rise building applications.

Chevron Opposes Measure

Chevron Corporation has come out against Proposition 65, which will be on the ballot in California this November. The company says the measure would make it "extremely difficult" for farms or businesses to operate with the routine use of pesticides, gasoline, diesel fuel and other chemicals considered safe for household use. Chevron says it is urging California voters to read the proposition carefully before voting.

O-C Specialties Unit Sold

Owens-Corning Fiberglas Corporation has reached agreement for the sale of its CHR Industries subsidiary to Bundy Corporation. CHR, a specialty pressure-sensitive tapes, silicone rubber sheet and "Teflon" coated fabrics firm based in New Haven, Conn., "will add approximately \$25 million in sales to Bundy's \$70 million performance plastics group," says Bundy president William E. Eckhardt.

Pantasote Deal Complete

Pantasote, Inc. has completed the previously-announced sale of its Hickory, N.C. polyvinyl chloride film facility to Hickory Vinyl Corporation. The Hickory facility, which had sales of approximately \$7 million last year, will continue to supply a portion of Pantasote's film requirements for the company's Butler, N.J. printing/laminating division. Pantasote had 1985 sales of about \$133 million.

Vinyls Venture Set

Imperial Chemical Industries PLC and EniChem are completing plans for their vinyls joint venture, to be known as European Vinyls Corporation, to begin trading on October 1, 1986. EVC International SA/NV, which will coordinate the venture's business worldwide, will be established in Brussels in order to prepare for start-up of the operating companies.

Nitrogen Plant Starts

Air Products & Chemicals Inc. has begun supplying nitrogen to Rohr Industries' Riverside, Calif. plant from a new vacuum swing adsorption (VSA) facility. The nitrogen is used as an inert pressurizing atmosphere for curing composite aircraft and spacecraft parts in autoclaves.



James J. Bigham

Celanese Corp. Sets Up Unit For Specialties

Celanese Corporation last week said it has formed a new unit, Celanese Advanced Technology Company, and appointed James J. Bigham as its president.

"This move," says CEO John D. Macomber, "is an important step in our growth and diversification strategy." He adds that it will "further strengthen the tie between our research and development activities and our growth businesses, which will play an increasingly important role in our future."

With headquarters in Chatham, N.J., the technology group employs 650 persons in administrative, research and pilot production facilities at Charlotte, N.C., Corpus Christi, Tex., and Summit, N.J., with a production unit at Rock Hill, S.C.

The focus will primarily be on advanced materials such as "Vectra" thermoplastic and a polybenzimidazole specialty fiber of which the claimed properties are high temperature and chemical resistance.

Mr. Bigham is a vice-president of Celanese Corporation and formerly president of Celanese International Company.

Department Plans to Expand Fuel Ethanol

Department of Agriculture last week expanded its temporary program to encourage the use of grain in the production of fuel ethanol by including dry-milling and wet-milling grain products and grain-derived syrups as eligible feedstocks.

The goal of the program, which ends September 30, is to maintain the demand for grain by bridging the gap between demand for grain and lower prices expected this fall as a result of reduced price support levels mandated by the new farm program.

The decision followed a comment period and an informal hearing held to determine whether the temporary program to encourage the use of grain for fuel ethanol should include non-grain-based ethanol producers, who use a variety of feedstocks.

Daniel G. Amstutz, under secretary of agriculture, says it was determined that while a reduction of grain-based ethanol feedstocks costs through September would preserve a market for grain, a similar situation does not exist with respect to non-grain ethanol feedstocks.

Pickens Recommends Hemispheric Market

The US should seek energy security by encouraging the formation of a Western Hemisphere Energy Alliance or an energy common market, two panelists proposed in a symposium on energy mergers and energy policy at the national meeting of the American Bar Association in New York last week.

T. Boone Pickens, chairman of Mesa Petroleum Corporation, and the leading advocate of oil industry restructuring, whether by forced merger or management policy, suggested that an Energy Alliance linking the US with Canada, Venezuela, Colombia, Ecuador and other oil and gas-producing nations would meet the national security objective once believed attainable through US self-sufficiency.

Theodor Garrish, assistant US secretary of energy, noted that the producing and consuming nations in the Western Hemisphere, are already verging on a common market for energy. By the end of the decade, Mr. Garrish noted, there will be a free flow of oil and gas between Canada and the US, as the last of Canadian controls will have been phased out.

Mr. Garrish's remarks, like those of Mr. Pickens and Charles Trabandt, commissioner for the Federal Energy Regulatory Commission, laid great emphasis on the detrimental effects of regulation and the

need to permit the maximum play of free market forces in the production and allocation of energy resources.

The panelists also agreed that the benefits flowing from mega-mergers and restructuring in the oil and gas industry far exceeded the claimed ill effects. The fact that the oil production of most major US oil companies significantly exceeds their discovery of new reserves creates a need for restructuring and also supports the idea of a Western Hemisphere energy common market, the speakers indicated.

The increased Federal controls over mergers being sought by some of the larger oil companies that have become targets of Mesa and other small companies were rejected by the panelists. Mr. Garrish noted that it took five years to dismantle the crippling price controls and allocation of oil implemented in the mid-1970's.

"It is the politically powerful losers who do the lobbying, and it is hard to resist their demands," he said.

Mr. Pickens had similarly hard words for Federal regulation, but there was implicit disagreement about Mr. Pickens' plan to form a massive organization of stockholders to press for shareholder rights. A panelist said that a lobbying organization of 47 million stockholders would not necessarily have

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Methane From Land Fill

The "Gemini-5" system, a new, proprietary gas separation technology developed by Air Products & Chemicals, Inc., has been incorporated in a recently completed landfill gas recovery facility in Greensboro, N.C.

This system, which includes equipment supply and technical services, is a pressure-swing adsorption (PSA) process that separates carbon dioxide and methane, producing a gaseous stream of 99 percent pure methane at high recovery levels. The system operates at considerably lower pressures than competing technologies, and has been automated for semi-attended operation.

In the first commercial application of the system, it will purify gas recovered by GSF Energy Inc.'s new facility at the City of Greensboro's White Street landfill.

The plant has a capacity to process up to 3 million standard cubic feet per day of the raw gas generated by the natural decay of landfill material. GSF Energy Inc., an Air Products subsidiary, will operate the recovery facility and sell the high-purity methane as pipeline gas to Piedmont Natural Gas Company under a multi-year contract.

In the gas processing facility at Greensboro, raw feed gas passes through a proprietary pretreatment system to remove trace impurities. The pretreated gas then passes through a bed of adsorbent to remove carbon dioxide, producing a high-purity methane product stream. The carbon dioxide is removed from the adsorbent by lowering the pressure and can also be collected at high recovery and purity as a byproduct.

Household Cleanser Sales To Hit \$9.9 Billion This Year

US sales of household cleaning products will show moderate but steady growth through 1986 and 1987 with most activity occurring in the large soaps and detergent sector, according to a new study by Charles H. Kline, Fairfield, N.J., market analyst.

The industry will reach \$9.9 billion in 1986, up by 6.8 percent from \$9.3 billion in 1985, Kline asserts.

This growth will be influenced by a number of factors as marketers attempt to gain share in this highly competitive industry. Kline says these include the following: industry consolidation through acquisitions and divestitures; increasing efforts to extend successful brands; heightened consumer demand for convenience; and changing demographics and buying patterns among consumers of household cleaning products.

Several acquisitions took effect in 1985 which dramatically increased sales of five companies and will alter the competitive structure of several product categories in 1986 and beyond.

Greyhound increased its sales of household cleaning products by over 1000 percent with the acquisition of Purex's Consumer Products Division which it has merged with Armour-Dial to form the Dial Corporation.

The acquisition product categories as well as a large, growing private-label business. Similarly, the acquisition of Texize in

creased Dow Chemical's sales of household cleansing products by 871 percent, strengthened its position in the bathroom cleaner category and expanded its participation in the growing all-purpose and glass cleaner segments.

Other significant acquisitions include Reckitt & Colman's purchase of Airwick, Sare Lee's purchase of selected assets of Nicholas Kiwi and Block Drug's acquisition of the X-14 brand of mildew remover from White Laboratories.

Marketers are more likely to extend their strongest brands than to introduce new ones, a strategy that stimulates sales and rapid consumer acceptance while maximizing the effectiveness of promotional expenditures, according to the study. Economics Laboratories has built its "Scrub Free" line of cleansers using this strategy.

This tactic has also worked well for Church & Dwight ("Arm & Hammer"), Kline says. However, it represents a new approach for the largest marketer in this industry, Procter & Gamble. The company, once unwilling to exploit such popular brands as "Tide," introduced a flurry of extensions in 1985 and 1986 and appears likely to continue. For example, at least three distinct products bear the "Tide" name in 1986 and several new liquid detergents bearing the "Cheer" and "Bold" names have been announced.

Increasing demand for convenient house-

Continued on Page 17

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OILS, FATS & WAXES

Palm Oil Market Depreciates; Production Increases Again

Palm oil prices have fallen considerably over the past couple of weeks due to oversupply, weak export movement, and low prices on competing oils. A drop-off in orders from India in recent weeks has been especially harmful to the world palm oil market, sources say.

The oversupply situation facing the palm oil industry throughout the year is continuing. Malaysian Government palm oil production estimates put the July figure at 392,000 tons; August estimates stand at 470,000 tons, and September's production is forecast at 560,000 to 575,000 tons. These estimates trace the continuing trend of monthly Malaysian production increases of about 20 percent.

India's recent absence from world palm oil trade has been sorely felt in the market, sources say. India, usually Malaysia's largest customer, has bought less oil in recent weeks than had been expected. It is thought that with world stocks as high as they are, the Indians feel safe in waiting for the price to drop further before completing their buying for the year. It is hoped that when they do come back into the market, they will help bring prices back up.

INDONESIA SELLING LESS
On the other side of the coin, Indonesia has been selling considerably less palm oil than had been anticipated. Ballpark estimates by one industry analyst see Indonesia as having about 600,000 more tons to sell on the world market through December. If and when these quantities go into the market, palm oil prices can be expected to fall further, sources say.

Low pricing on competing oils has also helped to dampen the palm oil market. In Europe, rapeseed and fish oils have been providing stiff competition for palm oil, while the decline in coconut oil prices on both the spot and forward markets has been a problem for palm oil worldwide.

US use and trade in palm oil has been continued steady, industry sources say. US imports from October through June of this year are 217,623 metric tons (MT), compared to the previous year's figure of 127,152 MT. US stocks at the beginning of July stood at 35,756 tons, down from the June 1 figure of 40,393 tons.

The outlook for the future, though mixed, seems to indicate a continuation of depressed prices. Although India's buying is expected to increase soon, that must be weighed against the possibility of large amounts of Indonesian palm oil entering the market.

Even if this were not to materialize, it is considered certain that, barring extreme weather conditions, Malaysia's production will continue to increase over the next year.

or more. Most industry observers see no factors that could contribute to a significant firming trend in the near future for the vegetable oils market in general, and for palm oil in particular.

Malaysia announced early last week that it intended to lower the export duty on crude palm oil for the month of August. The duty on refined oil will not be lowered at this time. It is unclear if the reduced tax will last beyond August.

PRICES TRENDLINES

WEEK ENDING AUGUST 15, 1986

CHANGES/UP

Cottonseed, 41% bulk, Memphis, \$16 per ton
Soybean, 44% bulk, Decatur \$7 per ton

CHANGES/DOWN

Coconut oil, NY, 44c. per lb.
Corn oil, Midwest, 14c. per lb.
Cottonseed oil, Valley, 1c. per lb.
Lard, Iowa, bulk tanks, Chicago divd., 1c. per lb.
Palm Oil, 4c. per lb.
Peanut, 60% bulk, SE, \$5 per ton
Soybean oil, Decatur, 1c. per lb.

OILS, FATS INDEX

The Oils, Fats & Waxes Index reflects the prices of 11 representative materials in this sector and the quantity of each produced in 1985.

Aug. 16, 1986	79.60
Aug. 8, 1986	79.16
July 18, 1986	85.55
Aug. 15, 1985	85.82

Chemical Prices Start on Page 32

August. The Malaysian government is entering a joint venture with a company or companies for the refining of crude palm oil, and this is considered part of their reason for encouraging the release onto the market of large amounts of crude palm, a source says.

VEGETABLE OILS

COCONUT OIL. Pricing on coconut oil is sagging due to a lack of demand and abundant stocks. The price is thought by some to be near the lowest levels that it will reach.

Many traders were surprised last week by the low prices reached in the forward market. Although the spot market had been expected to fall, unusually low pricing was seen on positions as far ahead as 6 to 8 months, industry sources say.

Now, traders are expecting the forward market to fall to spot levels, and they believe that the spot prices will not fall much further.

Malaysia's recent reduction in crude palm oil export levies is being closely watched by people in the coconut oil industry, as reports that Malaysia is considering reducing the 10 percent export tax on palm kernel oil, a major competitor of coconut oil. Moves of this kind can be expected to depress coconut oil prices, sources say.

COTTONSEED OIL. The market for this oil has been very slow as buyers are waiting for the crop currently being harvested to bring prices down further than they have been.

Buying has been very weak lately, with the spot market seeing almost no activity, and the forward buying taking place at very low prices. Most of the trading being done currently is for November through March positions, selling for about 14c. per pound, industry sources say.

Helping to depress the market is the early start-up of oil mills in the Mississippi delta. The Texas crop, currently being harvested in coastal areas, is said to be lower in yield and quality than last year's crop. This harvest, which is expected to go on through November, is expected to fuel the early start-up of several other mills. No significant upward demand is expected until near the end of the year, when it is hoped that prices and

Continued on Page 16

Chemical Finance

Asarco Sells Additional 450,000 Shares

Asarco Incorporated, New York, has closed the sale of an additional 450,000 shares of \$2.25 depositary convertible exchangeable preferred stock and an additional 375,000 common stock purchase warrants pursuant to an option granted to First Boston Corporation to buy additional shares and warrants to cover over-allotments.

Avery Signs Final Pact For Uniroyal Chemical

Avery Incorporated has signed a final agreement for the previously announced acquisition of Uniroyal Inc.'s Uniroyal Chemical Company for approximately \$720 million in cash. Triangle Industries, Inc., a major shareholder of Avery, expects to make an equity investment of \$75 million in Avery as part of the financing. Avery Inc. is not connected with Avery International, the world's largest self-adhesive label manufacturer.

China, Morocco Boosting Exports of Barytes

Exports of barytes from China and Morocco are growing fast, while exports from once-important source countries — Chile and Peru for example — are continuing to fall, according to Roskill Information Services Ltd., London-based market research organization. China is now the world's largest producer, Roskill stated. Demand for barytes has declined with the reduction in oil drilling activity, Roskill noted, with scant chances for re-attaining earlier highs until the 1990's.

Millipore Acquires West Coast Software Maker

Millipore Corporation, a leader in the field of chemical separation and purification, has acquired Dynamic Solutions Corporation, a Ventura, Calif. based developer of software for analytical instrument data systems used by laboratories.

Pharmacia Boosts Net Income 16 Percent

Pharmacia AB, Uppsala, Sweden, raised its income after net financial items to \$426 million in the first six months of 1986 from \$368.8 million a year ago, as sales increased to \$1.767 billion from \$1.703 billion.

Union Carbide Hikes Second Quarter Net Income

Union Carbide Corporation has revised upward its second-quarter net income to \$388 million, reflecting a \$333 million extraordinary gain, principally from divesting its battery products business. Income a year ago totaled \$101 million.

Zemex Files 600,000 Shares of Common Stock

Zemex Corporation, New York, a diversified natural resource company mining and processing feldspar, kaolin, industrial sand, mica and tin ore, and a manufacturer of metal powders, has filed a registration statement with SEC for a proposed public offering of 600,000 shares of common stock through Tucker, Anthony & R.L. Day Inc.

Grace Redeeming 12% Percent Notes due 1990

W.R. Grace & Co.'s board of directors has approved the redemption of Grace's 12% percent notes due 1990, on September 15, at a price equal to their principal amount plus accrued interest. The notes will be refinanced with short-term borrowings at lower interest rates.

Prudential-Bache Lowers Betz Income Projection

Prudential-Bache Securities has lowered its earnings projections for Betz Laboratories, Inc., from \$2.48 per share this year to \$2.40 and from \$2.68 in 1978 to \$2.60, reflecting a more pessimistic outlook for industrial production in the second half. Stuart M. Pulvrent, Prudential-Bache's chemical analyst, recommends that the stock be held with the objective of selling in the mid-40's. It was recently quoted at 38%.

Asarco Sells Additional 450,000 Shares

Asarco Incorporated, New York, has closed the sale of an additional 450,000 shares of \$2.25 depositary convertible exchangeable preferred stock and an additional 375,000 common stock purchase warrants pursuant to an option granted to First Boston Corporation to buy additional shares and warrants to cover over-allotments.

Allied-Signal Acquiring Endevco Division

Allied-Signal Inc. has signed a definitive agreement to acquire the Endevco Division of Becton Dickinson & Co. for an undisclosed price. Endevco, headquartered in San Juan Capistrano, Calif., produces sensors and transducers for both government and commercial use.

Amoco to Issue \$250 Million in Notes

Amoco Company, a wholly owned subsidiary of Amoco Corporation, Chicago, will issue an aggregate principal amount of \$250 million in notes to be sold by Morgan Stanley & Co. and priced to yield 7.993 percent. Proceeds will be used to repay outstanding debt and for other corporate purposes. The notes, guaranteed by the parent company, are not redeemable before August 15, 1993.

Oppenheimer Recommends Ausimont Compo, Chemed

Oppenheimer Inc.'s specialty chemical analyst, Charles J. Rose, is recommending purchase of the shares of Ausimont Compo Corporation, a specialty chemical company with a projected earnings growth rate of 25 percent per year. Ausimont Compo is the only foreign company on Mr. Rose's recommended list. Domestically, he is recommending Safety-Kleen Corporation and Chemed Corporation and telling his clients to avoid Nalco Chemical Company and Lubrizol Corporation.

Morgan Olmstead Puts Pfizer on Recommended List

Morgan Olmstead Kennedy & Gardner, Los Angeles based investment concern, has moved up its rating on Pfizer Inc. from "hold/switch" to "buy," citing an improvement in near-term prospects and a continued strong long-term outlook. The company's earnings are projected at \$3.95 per share this year and \$4.50 in 1987, as against \$3.44 last year.

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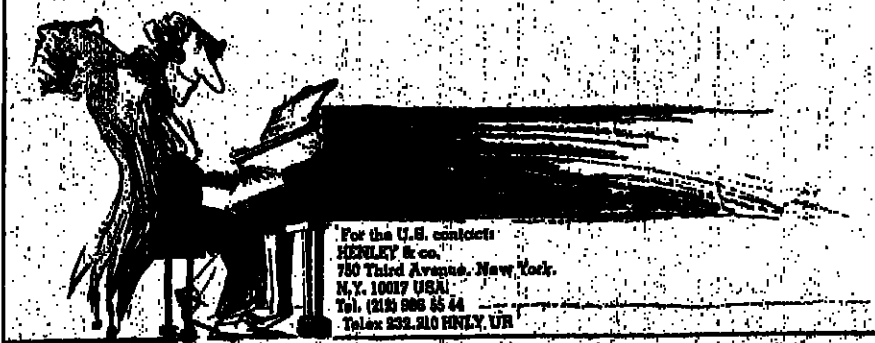
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AROMATIC ORGANICS

Benzene Price Increases As Crude Oil, Gasoline Rise

In the wake of rising crude oil and gasoline values, benzene producers have posted 5-cent-per-gallon contract price increases. The upward adjustment was initiated by Shell Chemical on August 8, one week after a 5-cent-per-gallon industrywide lowering of prices.

The price returned to 75 cents per gallon for Shell on August 16, based on a seven-day notification period. The price becomes effective for Exxon Chemical Americas, which followed Shell's move, on August 18.

Standard Oil of Ohio's price moved to 75 cents per gallon August 15, as the company's contracts are said not to require seven-day notification period. Other producers reportedly are moving in kind.

The production accord reached by the Organization of Petroleum Exporting Countries "has lent some support to the market," says one supplier, and a trader observes that, although there is some skepticism over the long-term success of OPEC's move, buyers have responded to the situation.

"There has been a turning away from a destocking philosophy to one of loading up on feedstocks... (with buyers) grabbing what they think is cheap material as a hedge against an upward trend," he says.

An analyst agrees with this assessment, although he says the upward trend is played out because he expects stability for crude oil and gasoline pricing at the higher levels.

DECLINE IN STOCKS

Benzene inventory levels declined 35.63 million gallons during the second quarter, from 159.878 million gallons on March 31 to 124.248 million gallons on June 30, according to National Petroleum Refiners Association.

The June 30 level "is considered a mid-range type of number... (based on which) nobody should be forced to buy or sell," says an analyst. He adds that the level has probably edged slightly further downward since then.

The downward trend in inventory levels is attributed primarily to a decline in production. Production during the second quarter was 325.778 million gallons, 34.057 million gallons lower than the first quarter's 359.835 million-gallon-level, according to NPRA.

Production of benzene through hydrodealkylation of toluene "really fell out of favor in the second quarter," notes the analyst, as strong octane demand held toluene pricing at a high level.

HDA has been "very minimal" since the early part of the year, agrees a producer, and the few units in operation are said to involve captive requirements. "Nobody is out buying toluene on the merchant market for HDA," he says.

Benzene supplies have been augmented by

the resumption of basic aromatics production at Amerada Hess Corporation's St. Croix, Virgin Islands facility last month. Hess is reported to have sold at least two parcels of benzene the first week of August, one of which went to a Gulf Coast user. "They're cranking out 2,000 barrels a day of

PRICES TRENDLINES

WEEK ENDING AUGUST 15, 1986

CHANGES/UP

None

CHANGES/DOWN

None

AROMATICS INDEX

The Aromatic Organics Index reflects the prices of 14 representative materials in this sector and the quantity of each produced in 1985.

Aug. 15, 1986	167.34
Aug. 8, 1986	167.34
July 17, 1986	167.34
Aug. 16, 1985	167.34

Chemical Prices Start on Page 32

100 percent spot market sales," an observer says. The facility had been down since February.

Sohio is in the midst of resuming benzene production at its Alliance, La. plant, which underwent a turnaround from June 27 to August 1. The turnaround had been scheduled for later in the year, but was moved up because "some parts had to be fixed right away," according to a company spokesman.

CYCLOHEXANE — Reflecting the 50-cent-per-gallon benzene contract increase, cyclohexane pricing rebounded 4.1225¢ per gallon in accordance with the industrywide pricing formula. Prices range from Phillips Chemical Company's \$9.5225¢-per-gallon price to Texaco Chemical Company's \$8.5225¢-per-gallon price.

Producers say the market is fairly tight at present, although Chevron Chemical's 30-million-gallon-per-year Port Arthur, Tex. plant, said to be operating at a high rate since June, "fills the void" created recently by the temporary shutdown of E.I. du Pont de Nemours & Co.'s 80-million-gallon-per-year Corpus Christi, Tex. plant.

It is felt fairly likely that producers will make an effort to raise pricing by 1¢ per gallon for the fourth quarter. Producers at Phillips' price level have eliminated 2¢ per gallon of the 4¢ per gallon temporary voluntary allowance granted last year under price

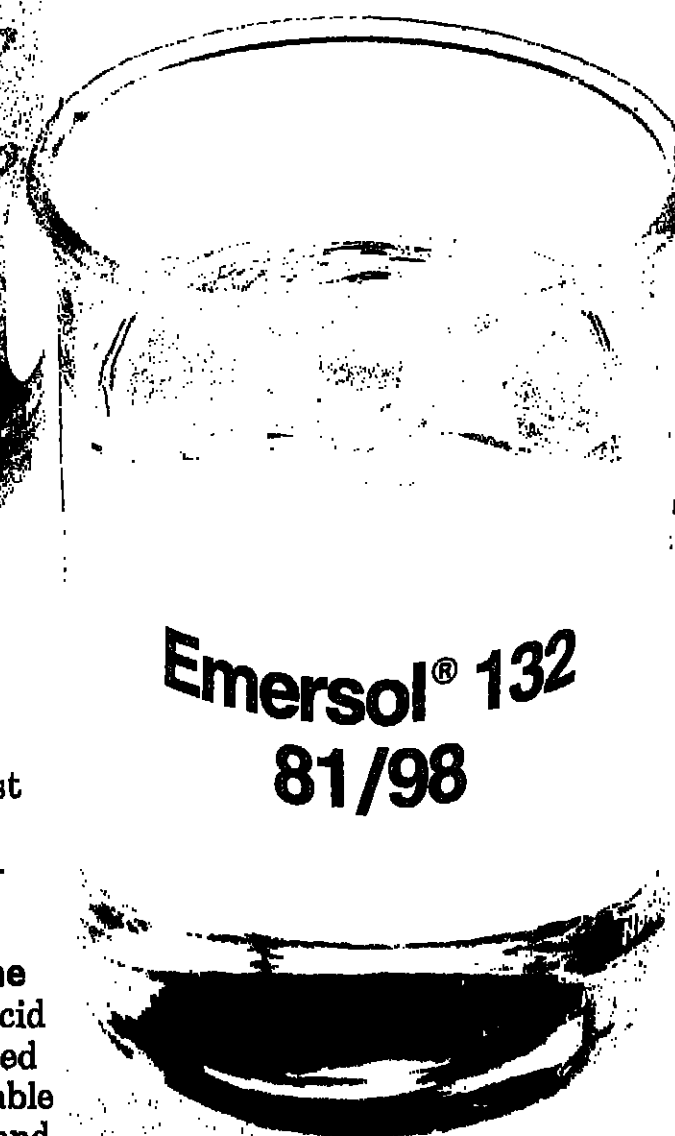
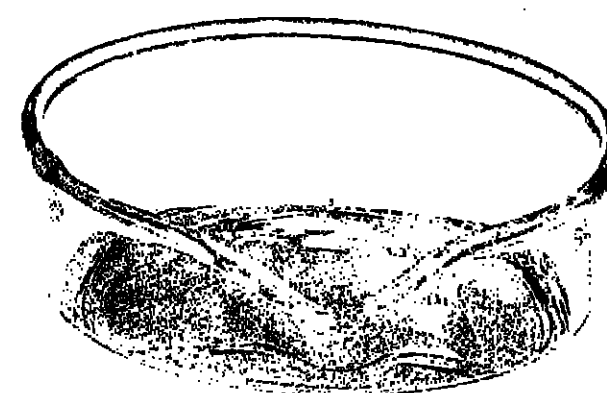
AROMATIC ORGANIC IMPORTS: JUNE

CENSUS BUREAU REPORTS ON THE TOP 24 AROMATICS.

	QUANTITY	VALUE	QUANTITY	VALUE
	JUNE	JUNE	MAY	MAY
Alkylphenols.....lb.	72,400	130,469	194,857	643,993
Aniline.....lb.	8,814	7,905		
Benzene.....gal.	20,087,228	14,214,495	11,789,294	7,008,008
Benzol acid.....lb.	84,422	53,319	62,441	3,530
Coaltar.....lb.	2,385,730	225,242	8,087,618	1,008,214
Cresol oil.....gal.	1,878,103	1,084,023	53,008	20,118
Cresol, o-, m-, p-.....gal.	302,053	181,334	75,008	14,281
Cumene.....lb.	48,207,829	5,823,823	28,147,841	3,416,762
Cyclohexane.....gal.	1,376	2,344	1,008	1,430
Cyclohexanone.....lb.	2,324,854	734,122	1,008	1,430
Fumaric acid.....lb.	120,889	195,727	195,216	75,494
Maleic anhydride.....lb.	548,291	232,590	448,990	214,122
Melamine.....lb.	1,309,847	484,028	1,325,237	500,122
Naphthalene.....lb.	293,278	223,384	495,713	204,002
Naphthalene AS & derivatives.....lb.	205,289	81,546	1,087,274	204,002
Phenol.....lb.	308,881	84,700	954,295	308,272
Phthalic anhydride.....lb.	215,489	308,169	88,990	122,122
Styrene monomer.....lb.	11,727,063	1,249,690	8,389,122	1,211,492
Toluene.....gal.	18,380,417	21,804,788	12,350,778	1,107,749
Val blue 1.....lb.	725,721	814,881	851,621	1,107,749
Xylene.....gal.	4,188,721	2,088,641	4,754,013	2,100,000
o-Xylene.....gal.	100,141	72,140	3,887,889	1,400,000
p-Xylene.....gal.	3,182,774	4,188,708	1,233,890	1,100,000
m-Xylene.....gal.	118,294	85,819	181,000	1,100,000

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OILS, FATS & WAXES

Continued from Page 10

tomers' stocks will be low enough to draw buyers back into the market.

SUNFLOWERSEED OIL — This oil is quoted at 15 1/4 and 17 1/4 c. per pound, crude, f.o.b. Minneapolis. Trading has been extremely slow both in terms of export movement and domestic selling, sources say.

Export demand is described as very poor, due primarily to a lag in orders from Mexico, which has been a good buyer this year up to a month or so ago, industry sources say. Argentina's sunflowerseed oil is said to be selling at a \$40 per ton discount to the US product, making it difficult for US producers to compete on the world market.

Latest figures on domestic supplies show US stocks at the beginning of July at 24,011 tons. The figure for the beginning of June is 21,934 tons, according to Department of Commerce figures.

Domestic trading is slow, but it is hoped

that bearish customers who have been waiting for the market to fall further will need to re-enter the market soon to keep their stocks up. Also, US producers are waiting for the usually strong buying habits of the Mexicans to return as their supplies begin to fall as well.

FATS & GREASES

TALLOW — This market has been rather low, suffering from competition from palm stearine and coconut oil. Another factor in lower prices is the lack of any "worthwhile export trade," according to an industry source. The same factors are said to be keeping white grease down.

Exports of tallow for the first half of this year far exceed those of last year. Mexico, for instance, the largest importer of US edible tallow, increased its imports 128 percent in the period January through June 1986 over the same period a year ago. Trinidad's imports are up 327 percent, and Jamaica's are up 250 percent.

While the export demand has been described as poor, one industry analyst sees a large amount of nearby demand due to foreign countries trying to use the Commodities Credit Corporation credits before they expire, he says. The source sees forward buying abroad as slow.

The grease market is said to be benefitting from the drought in the Southeast. Oils that are generally used in chickenfeed have not been faring well; therefore, chicken farmers have been adding more grease to their chickens' feed to help "fatten them up," according to an industry source.

Polymer Institute

Continued from Page 7

development of an artificial foot and the development of new processing techniques to allow its mass production.

The corporation also anticipates increasing its work for automotive manufacturers and suppliers who associate Dr. Frisch with the search for sturdy, lightweight plastic materials for use in cars and trucks. He developed the comfortable, durable and low-cost substitute for foam rubber that has been used for the past 25 years in car seats, armrests and dashboards. The polyurethane bumpers, fenders and side panels in use today also are an outgrowth of Dr. Frisch's work and that of his associates.

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Household Cleanser Sales

Continued from Page 9

hold cleansing products will continue to encourage both products and packaging innovations. Several such innovations were introduced in 1985 and early 1986. Among the most revolutionary are Procter & Gamble's "Tide Multi-Action Sheets," disposable foam sheets containing premeasured amounts of laundry detergents, all-fabric bleach and fabric softener.

Others include "Act" (Clorox), a dissolvable capsule containing liquid laundry detergent. The "Bloo Duck," a 1986 introduction from Sara Lee (Kiw) is a thick, liquid toilet bowl cleaner contained in a bottle with a spout shaped like a duck's bill. This allows the user to apply the cleaner more directly and more neatly.

The demand for convenience products will continue to fuel the growth of multipurpose and concentrated products through 1986 and beyond. Laundry detergents will continue to be combined not only with fabric softeners but bleaches and enzymes as well. Similarly, all-purpose cleaners which both disinfect and clean such as "Tackler" ("Clorox") are likely to be popular.

Liquids also represent fast growing or emerging segments in several categories including laundry detergents and, more recently, automatic dishwashing detergents. Liquids account for over 30 per cent of laundry detergent sales in 1986, up from 25 per cent throughout 1985.

In 1986 all the leaders in the automatic dishwasher detergent category had introduced or announced intentions to introduce liquid versions of their products. These include "Brightside" and "Palmolive Automatic" (Colgate Palmolive), "Electrasol Liquid" (Economics Laboratory) and ALL Lever Brothers).

In 1985 and early 1986, marketers of household cleansing products increasingly responded to changes in their consumer base through new approaches in promotion and distribution.

For example, in the laundry detergent category, a new product was positioned as a cleaner for baby clothes. (Mennen's "Baby Magic"), while marketers of starches and sizings developed light starches geared for younger, working consumers. In the future, marketers are likely to position products towards single persons, older persons,

teenagers and men, all of whom account for a growing proportion of shopping dollars.

Marketers are likely to adapt promotion and to seek new distribution outlets in response to shifting consumer profiles and buying patterns. Promotions such as instant redeemable coupons, sampling, and mail order coupons will become more important as consumers have less time to clip coupons or watch television.

Finally, manufacturers will increasingly seek such alternatives to traditional retail outlets as mass merchandisers, warehouse stores or buying clubs as these stores grow in popularity among value-conscious consumers.

Although overall sales growth for household cleansing products will continue to be moderate, marketers who anticipate and take advantage of certain trends are likely to outperform their competitors.

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Disinfectant Problems Cited

Continued from Page 5

grants in laboratories of at least four states. "The primary reason for our support...is related to the tests currently in use to measure the efficacy of disinfectants—especially the Association of Official Analytical Chemists' Use-Dilution test," he said.

Mr. Engel told the subcommittee the test is subject to significant variation in results and thus requires a high level of expertise to perform properly and consistently.

By having the test performed by a single laboratory, he said, the incidence of having an antimicrobial product pass tests in one state laboratory, and then fail in another, would be minimized if not eliminated.

Mr. Engel disputed the contention by Sen. Sarbanes and others that many disinfectants do not work.

"Considering that the role of hard surface disinfectants in hospitals and other health care facilities is to assist in reducing the numbers of pathogenic organisms to non-hazardous levels on hard surfaces... those accusations are not well founded," he said.

Mr. Engel added that CSMA knows of no validated instances where the effectiveness

of current hard surface disinfectants, when used according to label instructions, has led to cross-infection in hospitals.

Sen. Gore said he proposed his bill because "many hospitals are just becoming aware of the problem and will need our help to solve it."

He said many hospitals had "blindly trusted" the false claims of some manufacturers in behalf of their products, adding that, "There are a few bad actors in this industry."

Other witnesses included Dr. Martha Rhodes, assistant commissioner of the Florida Agriculture Department, and a leader in the fight against mislabeled disinfectants.

Urging reopening of the EPA laboratory, Dr. Rhodes said Florida has tested disinfectants for 18 years and has consistently found 15 to 30 percent to be "ineffective"—which she said meant that a product either did not kill germs or actually contained living bacteria.

Charles Shaffer, former director of the Beltsville laboratory, said few hospitals are equipped to test disinfectants and generally "placed their faith" in EPA approval of such products.

Mr. Shaffer, now retired, said it had been suggested that states take over testing but claimed few were likely to do so because it was "more efficient and logical" to have one main center perform the tests.

"Like most public health issues, this responsibility rests squarely with the Federal government," he said.

DPT Study

Continued from Page 5

age lawsuits have been settled or lost by drug companies.

"What proof does Lederle offer that it needs upwards of \$50 million per year to pay for DPT-related liability expenses or that it could not get liability insurance in the private sector for less than \$50 million per year?" Mr. Schwartz asked.

He also noted that Lederle and Connaught now have a monopoly market for the vaccine, which is mandated by law for all children entering school.

SIZE OF SETTLEMENTS

A report prepared by the subcommittee staff showed that \$16.2 million was paid in settlements by seven US vaccine manufacturers to 52 children injured by vaccines during the past five years—an average of \$300,000 per case.

Of the cases that went to trial, vaccine manufacturers won four and lost six. Five are being appealed.

Mr. Schwartz said the GAO investigation will "help us find out why we are paying such a high price for an old, crude vaccine instead of being offered a safer one."

For the past two years, Congress has been considering various proposals designed to ensure at least some type of non-court-ordered compensation for families of children who have died or suffered permanent injury as a result of vaccine reactions.

The proposals have also sought to preserve a limited right to sue a manufacturer and to provide incentives for drug companies to develop safer vaccines.

However, no proposal has drawn support from both the drug industry, which wants to keep liability awards as low as possible, and parent groups, who want the right to seek large awards.

As a result, neither the House nor the Senate has been able to move legislation dealing with the compensation issue.

Both chambers are expected, though, to approve bills ordering the Health and Human Services Department to stockpile vaccines, collect data on adverse reactions and promote research into safer vaccines.

After the Senate Labor and Human Resources Committee approved the basic vaccine bill on August 8, Sen. Paula Hawkins (R-Fla.) said she dropped the compensation provisions from her original bill because a compromise could not be agreed to by drug firms and parent organizations.

ALIPHATIC ORGANICS

Caprolactam Supply Tightness Is Expected to Persist for Present

Caprolactam producers report that the market for the material is "quite tight," both on the domestic and world-wide levels. Supply and demand have been in tight balance for the last several years, they say.

One producer attributes the closeness of supply and demand primarily to strong fiber markets. Caprolactam is a nylon precursor. "It's driven by fiber demand," he explains, and he specifies that "it's primarily the home furnishings fiber demand."

Non-fiber markets are also performing well, according to a caprolactam marketer. He cites film and plastics uses in particular, and says that these uses may be growing at a rate of 7 percent or more.

These applications are growing from a relatively small base, however. The supplier estimates that the market breakdown is approximately 90 percent for fiber uses versus 10 percent for film and plastics applications.

OVERALL GROWTH

One maker of caprolactam projects "overall demand up 3 to 4 percent for the full year 1988, compared to 1985. That's what the industry has seen for the last 5 to 6 years." Caprolactam output increased by 5.5 percent in 1985 over previous year levels (CMR, 3/31/86, p.3).

The industry's tight balance is not only a function of demand. Total industry capacity is currently about 1.2 billion pounds, domestically. It is common knowledge in the industry, however, that approximately 50 percent of Nippon Inc.'s reported capacity of 360 million pounds is not currently operating. Nippon reports that its major unit is operating at near capacity, however.

The only current plans for expansion of US capacity are with Allied (CMR, 3/31/86, p.3). The company is in the middle of a long term debottlenecking project. An Allied spokesman said last week that debottlenecking will add about 5 percent to the company's caprolactam capacity in 1988.

As for major grassroots capacity additions, one maker says "I think that it is a matter of waiting and seeing, because the industry has experienced down cycles in the past also."

Another maker agrees that caution is in order because of uncertainty about the future of the general economy. "If the economy goes down at all," he reasons, "fiber business will go right down the tubes." People will be less likely to replace carpet in a weak economy, he points out.

The effect of longer wearing carpets—and resultant declines in fiber demand over time—are also factors that bear watching, he says.

Another observer asserts that "the econ-

omy just hasn't shown signs of continued growth. So no one will be aggressive about making the kind of expenditures necessary for new capacity."

The future disposition of the currently idled Nippon capacity is also a question mark to competitors, and uncertainty on that score

PRICES TRENDLINES

WEEK ENDING AUG. 15, 1988

CHANGES/UP

None

CHANGES/DOWN

None

ALIPHATICS INDEX

The Aliphatic Organics Index reflects the prices of 20 representative materials in this sector and the quantity of each produced in 1985.

Aug. 15, 1988	222.80
Aug. 7, 1988	222.80
July 16, 1988	222.80
Aug. 16, 1985	203.80

Chemical Prices Start on Page 32

is likely to dampen impulses toward construction of major new facilities.

One maker says, however, that if demand continues to expand, the absence of new capacity could make for shortages in the future. Producers say that the US market is currently tighter than the overall world market.

"Another problem is the raw material situation," says a producer. He complains of raw material price fluctuations keyed to various OPEC actions of the recent past. "It has been difficult to keep in perspective with raw materials going up and down," he complains. "No one knows where it is going to go," he sighs.

Another source reports that prices for caprolactam on the merchant market are currently moving up "with benzene and cyclohexane on an upward swing." He says that prices declined from levels reported in late March, and then firmed. He asserts that selling prices currently are in the vicinity of 62 cents to 64 cents per pound for the largest accounts. He suggests that prices are in the low 70's for medium accounts.

ACETONE—This material has not weakened in price as much as crude oil or some other crude derivatives during the depression in oil prices, according to a producer. Acetone exports are described by the producer as "much better than last year."

ALIPHATIC ORGANIC IMPORTS: JUNE

BUREAU OF CENSUS FIGURES FOR THE KEY ALIPHATICS

	QUANTITY	JUNE \$ VALUE	MAY QUANTITY	MAY \$ VALUE
Acetic acid	8,894,558	875,200	4,599,777	368,850
Acetic anhydride	...	...	...	...
Butadiene	24,062,281	2,847,078	56,181,248	6,478,841
Butanol	...	...	...	...
Chloroacetic acid	2,365,445	761,339	2,835,041	824,884
Ethanol (industrial)	8,430,511	4,766,858	13,500,714	10,200,080
Ethanolamines	192,989	148,451	121,708	82,833
Ethyl acetate	...	...	...	...
Ethyl acrylate	6,285	6,353	...	...
Formic acid	32,555,114	4,852,048	22,133,340	3,382,998
Glycol	1,181,421	192,385	117,708	11,840
Hexamethylenetetramine	165,161	65,203	5,195,498	1,619,818
Lactic acid	70,135	23,400	231,994	74,823
Methanol	805,852	544,770	848,304	621,113
Methylamine	13,415,460	2,885,178	36,820,000	10,221,080
Methyl ethyl ketone	1,355,710	231,497	7,684,824	1,062,841
N-Methyl-2-pyrrolidone	6,182,724	768,048	2,000,814	295,385
Octanol	35,700	44,328	44,348	44,672
Oxalic acid	...	...	...	...
Pentacetylene and di-Pe	1,644,113	364,048	1,283,798	317,798
Perchloroethylene and di-Pe	934,788	533,274	1,496,822	772,498
Propylene oxide	8,877,885	1,008,141	18,345,176	1,235,416
Sonic acid	1,777,385	89,465	8,028,515	1,131,025
Tetraethyl lead	361,500	967,947	347,500	584,488
Trichloroethylene	...	...	...	...
Vinyl acetate, unpolymerized	1,587,890	272,448	4,902,588	846,338
Vinyl pyrrolidone	220,884	598,835	72,813	247,880

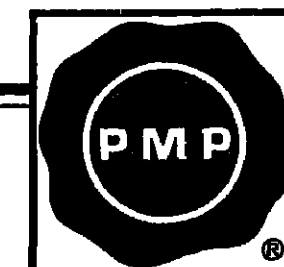
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ALIPHATICS

and he says that domestic demand has also improved.

These welcome trends have combined to shore up the price of acetone, he concludes, and have kept it firmer than phenol during 1986.

The maker says that the US industry faced net imports through June of 1985 of 20 million pounds. The same period in 1986 found the industry with net exports of 3 million pounds. The trend, which he attributes to the weakening of the dollar, "might be better by the end of the year."

As for domestic demand, he predicts that 1986 will finish about 80 million pounds above last year's total, which translates to growth of approximately 4 percent. That compares to a negative 3 percent growth rate for the full year 1985, the maker says.

A competitor shares his view of the export market. "Export demand has been

quite strong," he relates, and he also says that imports appear to be abating somewhat.

He attributes some significance to the weakening dollar, but he also cites an additional factor that has improved the health of the acetone industry. He says that reduced phenol output has reduced production of coproduct acetone.

Demand growth is likely to arise primarily from methyl methacrylate and bisphenol-A end markets, according to a maker.

He describes bisphenol-A as a "mixed blessing," however. The material is a raw material for polycarbonate resin, which is one of the fastest growing of all plastics. But bisphenol-A production consumes phenol and acetone in a 2:1 ratio. The result is the production of more phenol than would be necessary to generate the necessary amount of acetone, and resultant oversupply of acetone coproduct.

The maker also says that short term acetone demand for coatings will be fairly strong, but will weaken in the longer term as a result of the trend toward water-borne formulations.

Pricing for largest customers is said to be in the vicinity of 15-1/2 cents to 16-1/2 cents per pound, with average customers (buying in tank car quantities) paying 21 cents to 22 cents per pound.

One producer said that as of last week its list price East of the Rockies is 22 cents per pound, with a 1 cent higher list West of the Rockies.

Plastics Margins

Continued from Page 5

been "reasonably happy" with LDPE margins the past three years. He says LDPE operating rates have risen to the point where margins have grown enough to attract new capital.

High density polyethylene has seen strong growth, but Mr. Scott notes that pricing has been weak. This is because "surplus LDPE has been dumped into the injection molding market." He says poor pricing will continue in the HDPE market until LDPE prices rise enough to "attract LDPE capacity away from HDPE markets." Yet, Mr. Scott also notes that demand continues to grow for HDPE, but no new plants are in the works, "so supply-demand should improve."

Another speaker at the meeting, Martin Fernandi, vice-president, marketing at Ampac Corporation, noted that HDPE growth was up 4.5 percent through the first five months of May, but in the same five months of 1985, HDPE grew at 8.4 percent over the previous period in 1984.

He partly attributed the slower growth to a 12 percent drop in HDPE pipe sales through May, which he said was a reflection of the soft housing, agricultural, and oil markets. On the up side, though, Mr. Fernandi said HDPE use in film applications was 10.6 percent ahead of year earlier levels, while blow molding applications, its largest end-use, ran 5.9 percent ahead of last year. Ampac is a major supplier of additives and colorants to the plastics industry.

Turning to polypropylene, Mr. Scott says the business is benefitting from a combination of "rapid growth" and falling feedstock costs. He says demand growth is outpacing new capacity, while raw material propylene prices have fallen 40 percent since last winter.

The US is in a good position to benefit from these factors, he noted, since producers here are the lowest cost propylene suppliers in the world. Mr. Fernandi highlighted this advantage by noting that while domestic sales of PP were 3.3 percent higher in the first five months of 1986 compared to 1985, exports sales surged almost 30 percent above year earlier levels.

Mr. Scott also said that polystyrene producers were having their first good year since 1979, due not only to lower cost feedstock, but also to extensive consolidation and restructuring in the industry. However, Mr. Scott also pointed out that PS "suffers from vertical integration," explaining that PS is often used as an outlet for excess supplies of styrene and even benzene.

In general, Mr. Scott said he was "fairly optimistic about plastics through the early decade." He said demand is growing fairly well, and most of the new capacity due on line in the decade is already in place. Furthermore, polymers are outgrowing more traditional rivals, such as metal and glass, and new market opportunities are coming into use.

FIFRA Finally Gets

Continued from Page 3

extension within two years prior to the expiration of the extended patent.

If the extension of the patent is less than two years, testing could begin within one year prior to the patent expiration. It would not be considered a patent infringement to conduct tests on a pesticide not receiving a patent term extension two years prior to the expiration of the patent.

On the related issue of data compensation — how much money a company must pay to make use of another company's research data on a pesticide — the panel approved a proposal by Sen. Richard Lugar (R-Ind.), which provides for nonbinding arbitration and judicial review in a US court of appeals of the arbitration decision.

PPA had argued that because arbitration decisions could cause small producers to pay huge sums to make use of a patent-holder's health and safety data, the small producers should have an opportunity to begin their own time-consuming testing at an early date. The early start would allow the companies to apply for a pesticide registration as soon as the original maker's patent on the pesticide expired.

In other actions, the committee approved amendments by Sen. Paula Hawkins (R-Fla.), to require EPA to issue groundwater residue guidance levels to protect against pesticide contamination, and by Sen. Helms to prohibit states, with limited exceptions, from setting tolerances that are more stringent than the Federal limits.

The Hawkins groundwater amendment is supported by all groups involved in the FIFRA debate and will be added to the House bill as a substitute for the current provisions.

However, environmentalists strongly oppose the Helms uniform tolerance proposal and say they will fight to remove it. The situation is reversed in the House, where Rep. Pat Roberts (R-Mont.), says he will attempt to add the prohibition to that chamber's bill.

The centerpiece of both the House and Senate bills is a new accelerated timetable for EPA's reregistration of pesticides currently on the market, but for which much health and safety data is lacking.

Those chemicals were grandfathered in when the current law was drafted in 1972. But of the 600 active ingredients that new safety checks, EPA has completed action on just 127 in 14 years.

EPA says the problem is that the current law is too cumbersome, with a maze of regulatory steps and appeals processes and long deadlines for the gathering of data. Consequently, many of the chemicals on the market have never been tested to determine their safety.

Under the new legislation, EPA is required to reregister pesticides approved before November 1984, in about nine years. To help assure that funding will be available for this effort, companies seeking reregistration must pay one-time fees ranging up to \$150,000 for each active ingredient.

Fees can be waived or reduced for small businesses and for companies producing minor-use pesticides, such as the members of the Chemical Specialties Manufacturers Association.

ICI Buys Glidden

Continued from Page 7

claims a market breakthrough in metallic automotive finishes for its water-based "AquaSpace" industrial products. Annual research and development spending on these and other projects is nearly \$45 million, the company says.

The move will bring to well over \$1 billion the amount ICI has spent over the past 18 months on acquisitions in the US as part of its strategy for expansion in consumer, specialty and performance chemicals.

Harry Corless, chairman of ICI Americas, Inc. called the acquisition "another major step" in ICI's objective of increasing its business in the US. ICI sales in the US, which reached \$1 billion in 1982, is now over \$3 billion. Mr. Corless says the company's increase in profits during the four-year period has been even more impressive due to the pace of development of its specialty and performance (chemicals) businesses.



Sen. Jesse Helms who sees benefits for practically everybody in FIFRA legislation.

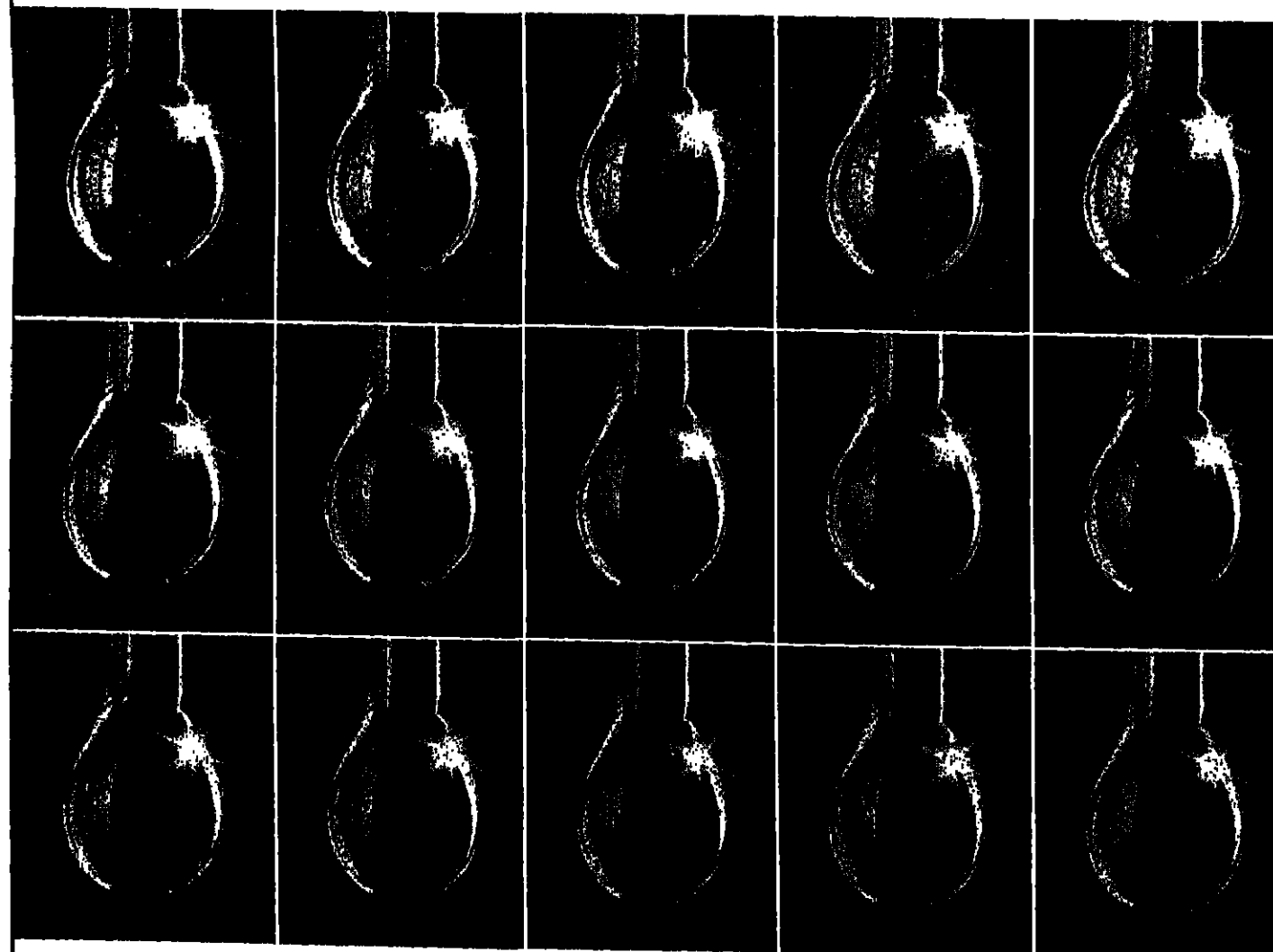
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CHEMICAL MARKETING REPORTER

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DRUGS & FINE CHEMICALS

Methionine Prices Gain in '86, Offsetting Declines Last Year

Methionine producers now say further price increases are possible at the end of 1986 or, more probably, the beginning of 1987.

The most recent increase was effective April 1, initiated by Rhone-Poulenc and quickly followed by Degussa Corporation and Monsanto Company. Price increases were attributed to a weaker US dollar, which has dropped further since then. Both Rhone-Poulenc and Degussa import some material (Rhone-Poulenc from France, and Degussa from Germany). Regardless of the dollar, however, selling prices are still far below the levels of 1981 partly because of competition levels in 1985. This could be the justification for further increases, hint some producers.

In 1984, truckload price for contract customers of Degussa and Rhone-Poulenc was about \$1.80 per pound. The current price is \$1.20 per pound, up from \$1.07 per pound. Spot purchasers pay \$1.23 per pound for truckload quantities. One ton cost \$1.23 per pound (\$1.25 for spot buyers) and \$1.26 per pound for less than one ton (\$1.29 for spot buyers).

Meanwhile, Monsanto's "Alimet" (liquid methionine hydroxalanalogue) moved up to 99 cents per pound for contracted customers up from 88 cents per pound. Spot purchasers pay \$1.02 per pound. The company's "MILA," (methionine hydroxalanalogue calcium), a dry product, costs contract customers 97 cents per pound, up from 86 cents per pound. Spot buyers pay \$1.

CATTLE FEED ADDITIVE

Unlike lysine, methionine pricing is not closely related to those of soybean meal and fishmeal. One observer comments that methionine's price would have to be \$2.40 per pound before soybean meal and fishmeal producers would consider using less, and could dip to as low as 50 cents per pound before they would consider using more.

Research is being done to increase methionine's usage as a cattle feed additive. The primary problem has been finding a way for the methionine to bypass the cow's rumen unchanged. One methionine producer explains that for methionine to be digested, it must reach the small intestine intact.

In cows, the methionine first goes to the rumen. It is then "attacked" by acids, broken down, and ceases to be as effective. The producer says a coating of some sort will be needed to prevent the breakdown. Sources claim that some tests have been successful, but not on a consistent basis. Currently, un-

der 1 million pounds of methionine goes to cattle feed yearly.

As demand is tied almost directly to poultry consumption, methionine is expected to see growth between 3 and 5 percent in 1986, in line with poultry output. Some estimates

PRICES TRENDLINES

WEEK ENDING AUG. 15, 1986

CHANGES/UP

None

CHANGES/DOWN

None

DRUGS INDEX

The Drugs & Fine Chemicals index reflects the prices of 10 representative materials in this sector and the change of each produced in 1985.

Aug. 15, 1986 21.1%
Aug. 8, 1986 21.1%
July 18, 1986 21.1%
Aug. 14, 1985 21.1%

Chemical Prices Start on Page 22

the poultry segment accounts for about percent of methionine demand, if not more. Overall US demand is estimated between 90 million and 100 million pounds annually, with some opting for the lower end of the scale, and other claiming the total is closer to the upper limits.

Imports are up through May, compared to the comparable period in 1985. About 10 million pounds of methionine have entered the US, compared to about 10.6 million pounds last year. Of the 12.3 million pounds almost 12 million pounds are from France.

Last year through May, a little under 1 million pounds had come to the US from France. Conversely, imports from Germany have dipped to 290,000 pounds from 490,000 pounds, and Japanese imports are down almost 30,000 pounds from 88,000 pounds.

MSG - Pricing is still considered soft. It has been all year, but some recent developments may cause a turnaround.

According to a major source of MSG, Taiwanese recently announced a 7 to 8 percent price increase of their MSG. Their ported were not specific about cost.

DRUG & FINE CHEMICAL IMPORTS: JUNE

CENSUS BUREAU REPORTS ON THE TOP DRUGS

	QUANTITY	VALUE	QUANTITY	VALUE
Acetaminophen	680,262	1,694,644	739,882	1,740,770
Benzenoid drugs, n.s.p.	201,373	2,113,000	177,212	1,740,770
Buclonine	85,400	37,865	488,300	1,771,440
Caffeine	386,650	1,558,409	4,086,780	2,000,000
Cholic Acid	4,240,776	2,585,951	224,100	1,000,000
Cream of Tartar	247,530	135,449	275,240	1,000,000
di-pantothenic acid	435,725	1,625,608	245,881	1,000,000
Iodine, crude	108,028	605,254	7,168,800	1,000,000
Monosodium glutamate	7,261,118	3,895,455	214,949	1,000,000
Niacin, pharmaceutical grade	99,207	214,353	223,407	1,000,000
Penicillin G salts	151,544	1,010,628	1,100	1,000,000
Phenylphthaline HCl	15,012	1,095,848	1,100	1,000,000
Potassium sodium tartrate, (Rochelle Salts)	88,018	35,895	735,111	1,000,000
Quinidine	426,808	1,909,933	183,045	1,000,000
Quinine and its salts	110,654	238,085	117,000	1,000,000
Saccharin	146,095	313,369	2,121,148	1,000,000
Steroid hormones, synthetico	733,436	497,332	90,109	1,000,000
Sulfamethazine	185,672	783,711	90,109	1,000,000
Tartaric acid	31,349	143,238	493,401	1,000,000
Vitamin A	325,381	935,216	183,100	1,000,000
Vitamin B	87,712	2,595,044	108,619	1,000,000
Vitamin C	52,625	780,048	108,619	1,000,000
Vitamin E	231,745	3,054,989	108,619	1,000,000
Vitamin K	13,883	601,044	108,619	1,000,000
Vitamin K	1,425,843	4,902,495	108,619	1,000,000
Vitamin K	271,810	1,245,470	108,619	1,000,000
Vitamin K	51,572	185,221	108,619	1,000,000
Woolgrease, n.s.p.	985,702	607,201	108,619	1,000,000



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DRUGS & FINE CHEMS

prices. MSG prices have recently been in the 74c. to 78c. per pound range.

The reasons behind this move are thought to be twofold. First, the Pacific Ocean Freight Company announced that effective Aug. 15, shipments from the Far East would be tagged with an additional freight cost of 1c. to 1 1/2c. per pound. The second reason, expected to affect everyone, is the depletion of Soviet material on the world market, because of the Chernobyl nuclear disaster.

Until these developments, pricing was called soft because of competition levels. One importer complains that there are too many companies involved in the market, and that this has kept pricing soft.

However, it is thought by some sources that the Taiwanese decision will influence others to alter their pricing. One importer says that his company has recently decided to reduce some of its TVAs, for example.

BOTANICALS

LOCUST BEAN GUM - Pricing has fallen during the last few months, but is still far above normal levels.

Price is currently pegged at about \$4.95 per pound. This is a dip from the \$6 to \$6.75 per pound pricing of late last year, but almost double the \$2.50 per pound price of last 1984.

Sources had expected prices to soften to between \$4.50 and \$5 per pound. Now, they are waiting for new crop in September or early October. According to one source, at that point prices could either rise or fall, depending on the crop.

Supplies are considered readily available by one source, who says that concentrating on "clearing their shelves," in order to make room for the new crop. He mentions that no one wants to maintain an inventory now, in case prices fall after the new crop.

Imports are up for the first five months of 1986. Through May, 2.39 million pounds came into the US, as opposed to 1.9 million pounds through May 1985.

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Pickens Recommends

Continued from Page 9

a benign effect on the market, especially if functioning as a Washington lobby.

The choice, Mr. Traband said, "is between the free market and Federal controls, and this administration has come down on the side of the free market."

Mr. Pickens forecasts that the price of oil would rise to \$18 to \$19 per barrel by the beginning of next year. Subsequent increases to the high 20's should not be expected to bring about any substantial increase in oil exploration in this country, he said. It would take \$30-per-barrel oil with an expectation of a rise to \$50 to substantially increase the number of operating rigs, which has fallen to a modern low of 734, only 20 percent of the peak reached four years ago.

Mr. Pickens had critical words for the large oil companies, some of which have been targets of unsuccessful merger campaigns by Mesa. He said that Mobil Corporation was paying its dividend by selling inventory, and conversely that a West Coast oil company has cut its dividend even though its payout was only a small part of an enormous cash flow. He also noted that Phillips Petroleum Corporation sold \$1 billion of assets with no reduc-

tion of cash flow and he inferred from this that the divested assets had been making a contribution to cash flow and therefore should have been divested sooner.

In arguing for the need for mega-mergers and restructuring, Mr. Pickens said that allowing the oil industry to restructure "will enable it to avoid the fate of the US steel industry."

OBITUARY

Harry J. Doyle

Harry J. Doyle, a leading figure in the cosmetics and fragrances industry and senior executive of Revlon, Inc., for more than four decades, died August 8 in New York City. He was sixty-seven years old.

Mr. Doyle worked closely with Charles Revlon throughout his career and the growth of Revlon as a worldwide company. In late years, he worked with Princess Marcella Borghese on the development of the Revlon-owned company which bears her name and served as president of the Princess Marcella Borghese Inc. division until 1979.

He served as Revlon's vice-president for new business development until his formal retirement in 1984.

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Ocean Incineration Backed

Continued from Page 7

velop, any ocean incineration program should be structured to be interim.

From the outset, OTA says several approaches might be used to control a program's scale and duration, such as directing certain wastes toward or away from ocean incineration by requiring waste producers to demonstrate their need to use the technology.

In contrast to land-based disposal, incineration—on land or at sea—can destroy more than 99 percent of certain hazardous wastes, largely breaking them down into substances that are less harmful or more manageable, such as water vapor and carbon dioxide.

However, metals and small quantities of undestroyed or partially destroyed waste that are released in the process can be harmful, and must be stringently controlled, according to OTA.

The report says ocean incineration may be particularly useful for wastes that are highly chlorinated. Burning these wastes generates an additional product, toxic hydrogen chloride gas.

To prevent human exposure to this gas, OTA says land-based incinerators must neutralize it through a scrubbing process which itself generates hazardous waste. Ocean incineration, which would occur far offshore, would use seawater's natural ability to neutralize the gas.

Because land-based incineration almost invariably occurs relatively close to populated areas, its primary risk to people is from exposure to routine emissions, says OTA.

In contrast, ocean incineration's main risk is to marine resources, from an accidental spill which would be difficult or impossible to clean up, OTA says the major risk to humans

from ocean burning would probably result from the transport and handling of wastes on land.

Of the 250 million metric tons of hazardous waste generated annually in the US, up to 20 percent could, in principle, be incinerated, OTA reports.

Up to half that fraction—organic liquids—could be incinerated at sea. These liquids, which include PCBs, are among the most toxic and concentrated of hazardous wastes.

As much as 65 percent of organic liquid wastes are currently disposed of on land or used as fuel in boilers and furnaces. Only small amounts are now incinerated, all on land.

If an ocean incineration program is to be developed, OTA says several issues—including regulating hazardous waste transportation and incinerator emissions—need resolution so that the technology can be conducted in as safe a manner as possible.

Rep. Roy Dyson (D-Md.), who staunchly opposed EPA's tentative approval of the plan to conduct a test burn off the Atlantic Coast, says the report "reiterates the many dangers and unknown factors" which thus far have blocked the use of ocean incineration off the US coastline.

"As stated in this report," says Rep. Dyson, "this process may reduce the amount of waste without reducing the risk to humans and to the marine environment. I believe that this is an unacceptable and unnecessary risk when we can continue to support our safer technologies, which include treating, recycling, and reducing the amount of toxic waste generated."

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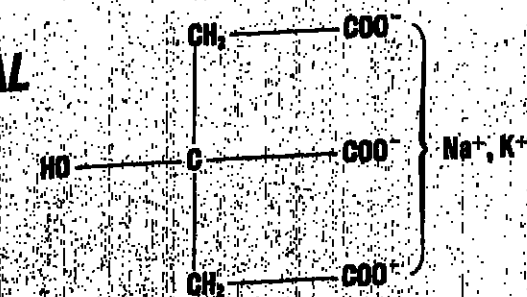
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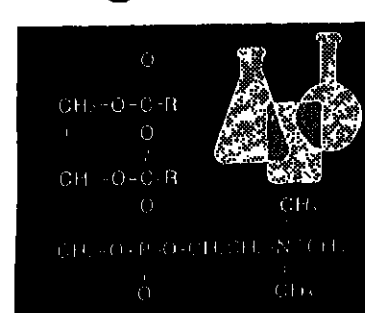
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Carbide Discloses

Continued from Page 3

pect as a way of trying to exert pressure on the Indian government to settle out of court. Mr. Ahmad said, however, that if the company has "hard evidence" of sabotage, it should turn over such information to Indian authorities. He said the company would be obstructing justice by withholding such evidence.

"That's absurd," said Bud Holman, Carbide's outside legal counsel, who countered that the Indian government hasn't disclosed "a single bit" of its Bhopal investigation. "Is their failure to disclose an obstruction of justice?" Mr. Holman suggested that the government is withholding its own evidence of sabotage because it would hurt the government's case against Carbide.

Mr. Ahmad, who called Mr. Holman's remarks "absolutely ridiculous," insisted the government has "not come across any such evidence." He said the government would

have publicly disclosed evidence of sabotage if it existed.

In its statement last week, Carbide said it will "share our conclusions with the Indian government upon completion of our pre-trial investigation."

Meanwhile, Union Carbide India, owner of the Bhopal plant, made provisions last week for a \$6.7 million writedown of the plant. Union Carbide India is 50.9 percent-owned by Union Carbide Corporation.

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HEAVY & AG CHEMICALS

Potash Makers See

Continued from Page 7

prospects for potash remain bleak. Harry Baumes of Chase Econometrics, BalaCynwyd, Pa. says planted corn acreage in the US next Spring will fall 8 percent to about 70 million acres. Corn consumes about one-half of all potash sold in the US.

Mr. Baumes says that acreage planted is likely to be more heavily fertilized, but total potash consumption in the US should still fall about 3 percent this fertilizer year.

While most analysts concede that domestic demand for fertilizers will decline for another year, they suggest that the seed for a better business climate is in place. Mr. Baumes notes that while domestic plant nutrient consumption will be down 3 percent to 5 percent this year, greater knowledge of government farm policy allows for farmers and their creditors to plan the new season with more certainty. He says an established farm program puts farmers in a far better planning position than the uncertainty that greeted them last Fall, and the results should benefit all fertilizer producers, especially makers of low-priced potash.

CONSUMPTION WILL FALL

A potash producer says fertilizer consumption in the US will decrease this year, but he adds, the potash producers industry "has a little better understanding of demand expectations and can gear production to shipments better than (they did) last year when they had a difficult job of coordinating (supply with demand). However, he also points out that "significant" domestic demand for fertilizers is still two to three years down the road.

Meanwhile, producers pin their hopes on the export market. One producer relates that exports through most of 1985-1986 were running a dismal 21 percent behind year earlier levels, before a late surge in overseas orders closed the deficit to 9.5 percent (2.8 million tons, K₂O basis). The producer expects this trend to carry over through 1986-1987.

He says renewed buying interest from China and elsewhere will push North American exports in the current fertilizer year 10 percent to 15 percent above the 3.1 million tons of K₂O sold overseas in 1984-1985. The producer adds that this anticipated surge in export consumption should roughly offset the projected decline in North American consumption of potash.

A spokesman for Canpotex, the Canadian potash export cartel, is slightly less optimistic about the export market, at least in the near term. He says excess world capacity has made selling potash at a price that covers producers' cash costs increasingly difficult. He currently quotes potash export prices in the \$70-per-product-ton range, f.o.b. Vancouver, B.C., down slightly from Spring quotes.

In his view, export shipments in the first half of the current fertilizer year should reach 1.7 million metric tons of product, up slightly from last year, and roughly the same as the six month period ended June 30, 1986. He says China has been purchasing potash

from Canpotex again in calendar year 1986, after staying out of the market last year. The Chinese, he adds, will buy a total of 400,000 metric tons of product this calendar year, which is "not like 1984, but it's headed in the right direction."

Mr. Baumes of Chase Econometrics notes that while China is more actively purchasing potash, competition in the world market from Israel, Jordan, and Soviet Bloc nations has intensified, no longer guaranteeing North

PRICES TRENDLINES

WEEK ENDING AUG. 16, 1986

CHANGES/UP

Caustic Soda solution, \$30 per ton

CHANGES/DOWN

None

HEAVY & AG INDEX

The Heavy & Ag Chemicals index reflects the prices of 18 representative materials in this sector and the quantity of each produced in 1985.

Aug. 15, 1986	113.69
Aug. 8, 1986	113.69
July 18, 1986	113.69
Aug. 14, 1985	113.69

Chemical Prices Start on Page 32

American exporters dominance in the international market.

North American potash prices reflect the current Summer slowdown in business activity. Currently Saskatchewan producers quote a price of \$38 per ton, 60 percent K₂O for standard potassium muriate, f.o.b. mine. This compares to a Spring high of \$44 per ton, same basis.

BASES & SALTS

CAUSTIC SODA — Dow Chemical USA, citing improved demand and reduced supplies, has posted \$30 per ton, off-list, price increases for caustic soda solution, effective immediately for spot buyers, and as terms allow for contract customers.

Dow's current caustic initiative follows a \$10 per ton price increase that failed last month. At the time, spot prices for railcar sized purchases of liquid caustic in the US Gulf Coast were \$80 to \$90 per ton.

Also during the month, two large chloralkali facilities were shutdown in Texas, adding to a several year trend of capacity rationalization in the business. On July 7, Dow closed a chloralkali unit in Freeport with a rated capacity of 1,375 tons per day of caustic soda. At month's-end, Du Pont shut its Corpus Christi chloralkali unit with a combined chlorine and caustic soda capacity of 2,600 tons per day. Dow says these shutdowns, coupled with "modest" demand growth has driven chloralkali operating rates to near 96 percent of on-line capacity. Dow says caustic demand in the first half

INORGANIC CHEMICAL OUTPUT: MAY

SELECTED FIGURES IN SHORT TONS FROM THE CENSUS BUREAU.

	MAY '86	APRIL	MAY '85
Aluminum sulfate, commercial	87,834	87,076	84,882
Calcium carbide, commercial	19,139	16,228	10,090
Calcium phosphate, dibasic anhyd.	38,629	45,951	85,517
Caustic soda, dry	16,690	16,076	22,142
Caustic soda, liquid	945,458	925,848	982,624
Chlorine, gas	587,825	573,369	525,705
Chlorine, liquid	582,547	585,501	525,705
Hydrofluoric acid	273,712	281,578	324,961
Hydrogen peroxide	15,185	11,545	16,491
Phosphorus, elemental	12,482	12,282	10,311
Phosphorus oxychloride	31,671	31,515	32,468
Phosphorus pentasulfide	2,393	1,426	3,321
Potassium bicarbonate	6,383	7,667	2,029
Potassium hydroxide, liquid	7,694	7,248	6,394
Potassium pyrophosphate, anhyd.	1,391	1,407	1,453
Sodium chloride	22,759	21,294	24,420
Sodium metal	69,395	64,771	74,490
Sodium sulfate, anhyd.			

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HEAVY CHEMICALS

of 1986 has climbed above year earlier levels in several segments. Sales to the chemical industry climbed 4 percent in the first half, demand in the petroleum refining business was up 3 percent in the period, while wood pulping used 3 percent more caustic and paper and paperboard production took 4 percent more solution. Textiles, a smaller end-use, used 11 percent more caustic in first half 1986 than in 1985.

At the same time, Dow says caustic soda's trade balance has improved this year. Partly due to the softer dollar, exports of caustic soda from the US have increased this year, while imports are on the decline.

These factors, improved demand and reduced supply have helped soak up extra caustic supplies, and have improved the balance between caustic and chlorine supply and demand. These conditions, coupled with "the need to restore price and margins in the chlor-alkali business," were the driving forces behind Dow's current price initiative.

Dow's current list prices for caustic will remain unchanged. The company also says that upon Superfund reauthorization, it will add the Superfund tax on chlorine and caustic soda as a separate line item to each invoice.

SULFUR DIOXIDE — Stauffer Chemical

Company says it will increase the price of liquid sulfur dioxide by \$10 per ton to \$20 per ton, bulk, effective September 1 or a contract permit. Terms are f.o.b. Hammond, Ind., Baton Rouge, La., Houston, Tex., and Martinez, Calif.

Stauffer says the increase covers higher sulfur costs and other production increases incurred since SO₂ prices were last raised over two years ago.

INDUSTRIAL GASES

Air Products and Chemicals, Inc. says it will increase the list price of its specialty gases and equipment, effective September 1, 1986. The list prices of most single component gases will rise 7 percent while most blended gas prices will increase 12 percent. The list price of gas-related equipment will increase 7 percent, the company says.

Air Products says these increases, the first since December 1984, will affect over 10 percent of the company's specialty gases.

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Chemical Profiles

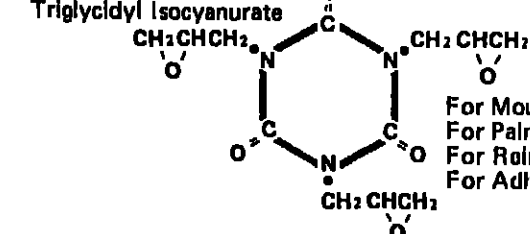
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COATINGS & PLASTICS

Organic Peroxide Price Hike Holding Despite Overcapacity

Producers report that July's 5-cent-per pound increases in MEKP (methyl ethyl ketone peroxide) prices and 6 to 8 percent increases in peroxydicarbonates costs are holding, "for the most part."

All suppliers except Reichhold Chemicals Inc., a smaller player in the market, have hiked prices for the peroxides.

One producer, Catalyst Resources Inc., which does not produce MEKP, raised prices for its dry benzoyl peroxide (BOP) from \$4.86 per pound to \$5.25 per pound, effective July. Other BOP producers have yet to follow with increases.

Although they assert that the increases have been holding in most cases, producers have been having difficulty getting MEKP prices to stick in certain areas of the US, particularly on the West Coast. One source blames this on what several call the "bizarre pricing behavior" of one large producer, complaining that the firm has been dumping foreign-produced MEKP and BOP (the only peroxides which can be transported safely and relatively inexpensively) at slightly above cost in an attempt to steal market share. The source reports that the firm's parent company is currently involved in a major lawsuit with the EEC involving charges that it has been unfairly undercutting BOP prices, threatening to push a British producer out of business. "If the dumping continues, the source threatens, 'we'll see them in court.'"

DUMPING DENIED

A spokesman for the company firmly denies these dumping accusations, insisting that imported material makes up an insignificant portion of the total amount of MEKP and BOP it offers on the domestic market.

Both MEKP and BOP market segments are currently dominated by overcapacity — as a source explains, one of his firm's plants alone would be capable of satisfying total domestic demand. When one considers that there are six domestic producers, the extent of the overcapacity problem is apparent. Sources give capacity utilization rates for the industry of 50 percent or less for MEKP and BOP.

The situation for peroxydicarbonates is much better, producers say. In the past afflicted by overcapacity, the industry is reportedly running at 80 to 85 percent capacity. PPG Inc. dropped out of the business in January, alleviating this problem to some extent.

One market source has indicated that there may be some short-term supply problems with peroxydicarbonates due to problems with Lucidol's and US Peroxygen's plants. The source feels that an accident at Lucidol's Fort Erie, Ontario plant two weeks ago may have had some disruptive effect on production. He also cites mechanical problems at the firm's Buffalo plant, which resulted in its being shut down for one week.

This same source reported that US Peroxygen might be closing its California peroxydicarbonate plant.

Spokesmen for both Lucidol and US Peroxygen said otherwise. A Lucidol representative explained that the Canadian plant explosion, which occurred early in the morning of

PRICES TRENDLINES

WEEK ENDING AUG. 15, 1986

CHANGES/UP

None

CHANGES/DOWN

None

COATINGS INDEX

The Coatings & Plastics Index reflects the prices of 13 representative materials in this sector and the quantity of each produced in 1985.

Aug. 15, 1986	306.4
Aug. 8, 1986	306.4
Aug. 7, 1986	306.4
Aug. 14, 1986	306.4

Chemical Prices Start on Page 32

July 23, was a minor incident which had no effect on supply levels. Similarly, he stated, the shutdown of its Buffalo plant represented only a minor dislocation of supply, as inventory levels were sufficient to handle demand.

Likewise, US Peroxygen officials report that they are considering consolidation of their California and Texas plants, and feel that expansion of their Marshall, Tex., plant might be more beneficial to them, given Argus Inc.'s strong Texas presence. The California plant will not be shut down, they assert. As one source describes the situation, all peroxydicarbonate producers are pushing hard to keep up production rates.

Producers report that prices for BOP continue to be deeply depressed. US Peroxygen Inc. is so far the only firm to have increased its prices, although all producers agree that increases are warranted. All domestic suppliers feel that a price increase will be necessary to restore health to this segment of the market.

PLASTICS MATERIALS

SAN RESINS — Sources say that demand for styrene acrylonitrile (SAN) resins is down largely as a result of imports, and substitution of cheaper plastics, such as acrylics and polystyrene, in major end-use applications.

Capacity utilization rates are said to be in the 65 to 70 percent range. Most of the SAN produced goes into PVC and ABS blends, but the merchant market for SAN is estimated

COATING & PIGMENT EXPORTS: MAY

BUREAU OF CENSUS FIGURES ON THE KEY PAINT MATERIALS.

	QUANTITY	MAY '86 \$ VALUE	APRIL '86 \$ VALUE
Antimony compounds	335,155	882,074	184,654
Carbon black, including thermal	27,985,000	4,387,725	30,821,026
Chromium pigments (1)	333,358	436,618	305,468
Colors, lakes and toners (2)			481,345
Concentrated dispersants			777,602
Yellow	377,807	936,878	810,076
Red	722,917	133,873	125,008
Violet	84,035	1,490,865	1,210,326
Blue	27,394	415,130	39,841
Slur	288,324	983,517	974,103
NSPP	805,785	3,580,777	3,800,111
Prepared paint and varnish driers	385,737	290,785	319,982
Prepared solvents & thinners			1,044,954
Iron oxides, nat., syn.	4,925,512	2,865,912	3,147,050
Lead oxides	8,440,287	2,735,507	8,897,729
Phthalic anhydride			55,544
Phthalic anhydride (2)			51,570
Other phthalates	1,214,143	367,208	370,077
Titanium dioxide	4,274,097	2,435,291	10,384,222
Zinc oxide	15,227,709	10,184,017	10,940,349
Zinc stearate	217,589	142,381	145,097
Zirconium oxide	129,498	215,694	810,419

(1) Includes mixtures

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WEEK ENDING AUGUST 15, 1986

This chemical prices section contains spot quotations and/or list prices of suppliers of chemicals and related materials on a New York or other indicated basis. The listings are based on price information obtained from suppliers. Note that posted prices do not necessarily represent levels at which transactions actually may have occurred. They do not represent bid and asked prices, nor a range of prices over the week. Price ranges may represent quotations of different suppliers as well as differences in quantity, quality and location. All matters under this heading are fully covered by copyright.

An index of weekly chemical market reports is on the back cover.

Albates (birds of), cons.	lb.	15.00	-
Aldehyde, 90% tanks, 1st. std. b.	lb.	.37	-
Prices 1c. higher in W.			
Acetaminophen (see N-Acetyl-p-aminophenol)			
Acetanilide, tech. flaked, bgs., 11, f.o.b. works.	lb.	1.29	-
Acetic acid, 100% tanks, 1st. std. b.	lb.	.25	-
Acetic anhydride, tanks, divd., 1c. higher in West.	lb.	.43½	-
Acetic anhydride prices 1c. higher in West.			
Acetosalicylamide, dma., 11, divd.	lb.	1.29	-
Acetoacetic acid, tanks, 1st. std. b.	lb.	.27	-
divd.	lb.	2.70	-
Acetoacet-o-chloranilide, dma., 11, divd.	lb.	2.85	-
Acetoacetic acid, dma., 11, divd.	lb.	2.85	-
divd.	lb.	1.58	-
Acetatoct-m-xylylidide, dma., 11, divd.	lb.	3.33	-
Acetone, tanks, divd. 50% tanks, 1st. std. b.	lb.	.25	-
divd. Zone 2 (Call.)	lb.	.27	-
divd. Zone 3 (W. of Rockies excluding Alaska)	lb.	.27	-
Acetone, 1st. std. b.	lb.	.53	54½
Acetophenone (see Phenacetone)			
Acetophenone, tech. tanks, f.o.b. works.	lb.	.76	.85
performs gals., extra cons.	lb.	2.15	-
N-Acetyl-p-aminophenol, c.i., f.o.b. works.	lb.	6.95	6.64
Acetylene black, imp., 50% comp. pressed, 122½ bgs. c.i., 11, 1st. extr. b.	lb.	.96	-
100%, 25-lb. bgs., same basis	lb.	.95½	-
Acetylene tetraboron, tanks, f.o.b. works.	lb.	.97	-
Acetylacetic acid, USP (see Aspirin)			
Acetylthiophyl citrate, bulk, f.o.b. works.	lb.	1.28	-
Acetylthiophyl citrate, bulk, f.o.b. works.	lb.	2.08	-
Acrolein, tech. tanks, works.	lb.	.82	-
Arylamide, solids, 11 works.	lb.	1.00	-
sch., 100-lb. bgs., 1st. std. b.	lb.	.74	.77
Acrylic acid, glacial, reg., tanks, divd.	lb.	.97	-
Acrylonitrile, 1st. std. b.	lb.	.80	-
Acrylonitrile, 1st. std. b.	lb.	.39½	.46½
Acrylonitrile-butadiene-styrene resin, high-impact, nat., 11, dma.	lb.	1.09	1.12
medium-impact, nat., same basis	lb.	1.05	1.08
low-impact, nat., same basis	lb.	.98	1.01
Acrylic acid, resin grade, bulk, hopper cons., 1st. std. b.	lb.	.57	-
sch., c.i., 1st. extr. b.	lb.	.59	-
Agar, USP, powder, 80 to 100 mesh	lb.	9.50	9.85
Alcohol, syn. C-8 to C-10, tanks, f.o.b. works.	lb.	.38	-
C-12 to C-13, tanks, divd.	lb.	.57	.59
C-14 to C-15, tanks, divd.	lb.	.80	-
C-16 to C-18, tanks, divd.	lb.	.80	-
sch., 100-lb. bgs., 1st. std. b.	lb.	4.10	5.70
C-7, dma.	lb.	1.95	-
C-8, dma.	lb.	4.30	5.30
C-10, dma.	lb.	4.30	5.30
Alginates			
Alkal blue, dry, flushed, 110-lb. dma., divd.	lb.	3.72	3.85
Alkal blue prices 1c. higher W. of Rockies			
Allspice Guatemalan / Honduran, bgs.	lb.	.90	-
Jamaican, bgs.	lb.	1.05	-
Allyl alcohol, tanks, f.o.b. basis, 1c. higher in W.	lb.	.60	-
Allyl bromide, 500-1000 tanks, 2,000 lbs. or more, works.	lb.	.55	-
Allyl chloride, tanks, f.o.b. basis, 1c. higher in W.	lb.	3.90	4.50
Allyl chloro, tanks, f.o.b. works.	lb.	.60	-
Allyl isothiocyanate, bota.	lb.	5.40	6.80
Almond oil, antil., bitter (see Benzaldehyde).			
bota.	lb.	3.50	3.15
sweet	lb.	1.24	1.41
Alse, Cape, 50% tanks, 1st. std. b.	lb.	2.55	2.75
powd., cgs.	lb.	2.50	-
Cape, 50% tanks, 1st. std. b.	lb.	2.50	-
powd., lgs.	lb.	3.00	-
Alum, NF, dma.	lb.	6.00	8.75
Alum, ammonium, tech. gran., c.i., 11, works	lb.	35.00	-
FOC powd., 1st. std. works 1000s.	lb.	55.00	-
Alum, potassium, tech. gran., bgs., c.i., 11, works	lb.	35.00	-
FOC powd., 1st. std. works 1000s.	lb.	55.00	-

Alumina, sintered, grad., 100-lb. bgs.	821.00
40-100 lb. min. c.i., 100-lb. lots	354.00
calcined, bulk, same basis	380.00
100-lb. bgs, same basis	190.00
hydrated, white, bulk, same basis	224.00
100-lb. bgs, same basis	3.25
Aluminum acetate, basic, dms., i.c.i., works	50
Aluminum chloride, dried, acid, 600-lb. drums, c.i., 1-l. works, ftr. equald.	45.4
bulk, same basis	48.5
semi-bulk bgs, same basis	15.00
Aluminum chloride, chem. coin, 32-lb. tanks, works	12.00
ret. dms., c.i., works	100 lb.
ret. dms., same basis	2.75
Aluminum chloride, chem. coin, 32-lb. tanks, 90% or more, 50-lb. pgs., 300-lb. lots, ftr. aid.	3.50
Aluminum oxide amorphous (see Alumina, calcined).	76
Aluminum oxide, dried, acid, 600-lb. drums, c.i., 1-l. works, ftr. equald.	1.40
Aluminum paste, leading grade, std., lining, 2,400 lb. lots, divd.	1.99
lining, extra-line, same basis	1.99
Aluminum silicate, chem. coin, 32-lb. tanks, 90% or more, 50-lb. pgs., 300-lb. lots, ftr. aid.	1.40
lining, extra-line, same basis	1.99
Aluminum sulfate, basic, c.i., same basis	3.17
Aluminum sulfate, chem. coin, 32-lb. tanks, 90% or more, 50-lb. pgs., 300-lb. lots, ftr. aid.	4.04
lining, extra-line, same basis	1.26
Aluminum sulfate, chem. coin, 32-lb. tanks, 90% or more, 50-lb. pgs., 300-lb. lots, ftr. aid.	1.85
lining, extra-line, same basis	217.80
Aluminum sulfate, chem. coin, 32-lb. tanks, 90% or more, 50-lb. pgs., 300-lb. lots, ftr. aid.	145.00
lining, extra-line, same basis	300.00
Aluminum sulfate, USP, gran., dms. lb., 100-lb. works	225.00
tech., 1-l. same basis	212
p-Aminobenzic acid, 1,000 kilos or more, dms. lb., 100-lb. works	1.88
2-Amino-4-chlorophenol dry and grad., 14,000 lbs. or more, ftr. aid.	9.60
10,000 lbs. or more, ftr. aid.	9.70
Ammonioethyl ethanamine, tanks, ftr. collect.	1.33
N-Aminoethyl ethanamine, tanks, ftr. collect.	1.05
2-Amino-2-ethyl-1,3-propanediol dms., 1-l. b.o. works	1.82

THE TERMINOLOGY OF THE CHEMICAL MARKETPLACE

a/alpha	C/Centrigrade	E/East
ail/ailowed	chys./chays	E./end point
anorph./amorphous	c/s./public centimeters	equ./equalized
AMF/American melting	CD/completely dan-	exp./expressed
	stured	ext./extracted
anhyd./anhydrous	d./doll insurance	
AOAC/Association of	doll./doll insurance	F./Fahrenheit
Official Agricultural	feigh./feigh	f.s./free alongside
Chemicals	f./forfeited	f.e.m./fermentation
a.p.a./available phos-	ons./oane	f.s./free fatty acid
phoric acid	com./commercial	f.f./free from chlorine
approx./approximately	con./concentrated	f.p.s./free from prus-
	ciophenically pure	sic acid
ASTM/American Society	opa./centipotes	th./fiber
for Testing &	oryel./oytellane	t.s.b./free on board
Materials	ca./citate	f./freezing point
	ctns./centons	tr./tweight
	oys./oylinders	
b/beta	d./deixtro	g./gamma
Be/Baume	col./couble	gal./gallon
blue./Baume's	dent./deatured	g.s./general purposes
b./beta-gamma	dest.-dist./destruc-	gran./granular
bgs./bags	tively distilled	and./ground
bbs./baies	d/distate-leave	
bbs./baies	dist./distilled	L.b./lattice boiling
b./boiling point	dier./dieslectric	imp./imported
b.p./bove phosphate	dial./dialeried	
of lime	dial./dialeried	
bt./boiling time	dms./dums	
bts./baies	com./comeste	

Amينو-2-methyl-1-propanol, 95% dms., c.l., l.i., f.o.b. works .lb.	95	
tanks, f.o.b. works .lb.	89	
Ammonophenol, dms., f.o.b. Charlotte, N.C. .lb.	3	
Ammonophenol, l.i. dms., f.o.b. Faslet, N.C. .lb.	7.15	
Aminoacetic acid, USP, 80-kilo dms., l.i. .lb.	18 50	
Ammonia, anhyd., fertilizer, wholesale, tanks, dtd. Midwest .ton	165.00	170.00
tankers, l.o., Gulf Coast .ton	80.00	85.00
aqueous, 29.4% N.H ₃ , anhyd. bases, tanks, int. equiv. E. of Rock- land .lb.	260.00	315.00
Ammoniacal liquor (see Ammonia, aqueous).		
Ammoniacal galvanizing grade, bgs., c.l., f.o.b. works .100 lbs.	26.80	
Ammoniacal salt, white (see Ammonium chloride com.)		
Ammonium bicarbonate, gran. bgs., works .lb.	.90	
Ammonium bicarbonate powder 15c. per lb. higher.		
Ammonium bicarbonate, 300-lb. .lb.	26.00	
dms., c.l., works .100 lbs.	25.00	
Ammonium bichromate, photo-dith. grade, gran. 100-lb. dms., l.i., l. works .lb.	2.00	
Ammonium bisulfide, bgs., l.i., works .lb.	.70	
Ammonium bromide, dom. N.F., gran. dms., c.l., l.i., f.o.b. works .lb.	1.31	
Ammonium chloride, white, tech. fine, gran. bgs., c.l. .lb.	18.00	
USP, gran. dms. .lb.	.40	.53
Ammonium citrate, dibasic, 250-lb. dms., f.o.b. works .lb.	2.79	
Ammonium chloride, photo-dith. grade, 85%, 24,000 lbs. or more .lb.	5.48	
Ammonium fluoroborate, tech. dms., c.l., l.i., works, int. equiv. .lb.	1.79	
Ammonium heptamolybdate, cryst. dms., 200 lbs. .lb.	5.57	
Ammonium lauryl sulfate, tanks, f.o.b. works .lb.	.29	.32
Ammonium lignin, sulfonate, bulk, 100% sodium, l.i. .lb.	72.00	
Ammonium nitrate, dom. fertilizer grade, 33.5% N, bulk, S.E. divd. .ton	130.00	135.00
Ammonium oxalate, tech. fine, gran. 300-lb. dms., l.i. .lb.	1.42	1.68
Ammonium pentaborate gran. bgs., c.l., works .lb.	.75	
Ammonium persulfate powder 20c. per lb. higher.		
Ammonium persulfate, 225-lb. dms., 24,000 lbs. or more, f.o.b. works .lb.	5.98	
55-lb. bgs. .lb.	.52	
Ammonium phosphate (see Di- and monoammonium ph- osphates).		
Ammonium silicofluoride, dms. c.l., l.i., works .lb.	.30%	
Ammonium sulfate lg. gran. f.o.b. .lb.	80.00	90.00
std. coml., bulk, f.o.b. works .ton	80.00	70.00
tech. bgs., c.l., l.i., works .ton	108.00	120.00
Ammonium sulfite, l.c., 40-ton tanks, 100% sodium, int. equiv. .lb.	460.00	
Ammonium thioacetate, tech. cryst. bgs., c.l., works .lb.	1.02	
tech .lb.	.93	
Ammonium thiosulfate, photographic, 80% tanks, f.o.b. works .lb.	.13	
Ammonium zirconyl carbonate, schi., bulk .lb.	.72	
Amyl acetate, primary mineral isomers, tanks, divd. .lb.	.57	
Amyl alcohol, primary mixed isomers, tanks, int. divd. .lb.	.48%	
Amyl carbinol, anhyd., l.i. .lb.	2.58	2.58
p-tert-Amylphenol, bulk, works .lb.	.91	1.00
Amyl oil, dms. .lb.	11.50	12.25
Anethole, tech. dms. .kilo	10.00	4.80
USP dms. .lb.	9.65	
Angelica root oil, bulk .lb.	700.00	
Aniline, tanks, f.o.b. .lb.	.33	.3
Aniline oil, dms., c.l., l.i., f.o.b. .kilo	11.75	

Aniseed, Egypt bgs	lb.	83	-
Spanish bgs	lb.	80	-
Turkish bgs	lb.	80	-
Anise ethyl, dms, dms	lb.	8.80	5.40
o-Anisidine, mp, cast solid, dms	lb.	2.27	-
o-Anisidine, mp, cast solid, dms	lb.	2.27	-
works	lb.	1.90	-
lakes, same basis	lb.	2.25	-
Antiferred, pure 99% ma, dms	lb.	1.70	-
11 ft. glt	lb.	1.70	-
Antimony fluoroborate, bg conc.	175-lb.	3.02	-
dms, 11 works	lb.	1.36	1.39
Antimony metal, c.f., mnes.	lb.	1.36	1.39
o-Anisidine, mp, cast solid, c.f., frt.	lb.	1.40	1.40
and E of Rock	lb.	3.80	-
Antimony trichloride, anhyd, solid	lb.	3.80	-
dms, 11 works	lb.	3.80	-
Apomorphine hydrochloride, NF, bps	gm.	15.05	-
Apocrot ketene, dms	lb.	2.00	-
Arabac gum, powd, lbs	lb.	1.85	2.15
spiny dried	lb.	2.00	2.15
USP grade	lb.	0.75	0.75
Aromatic petroleum solvents (see Solvent, naptha)			
Arsonic, cridin (see Arsonic) incal.			
Asphalt, red (see Naphthal, asphalt)			
Arsonic trioxide, 99%, bulk, c.f.	100-lb. warehouse	42	45
Asbestos (see Talc, fibrous)			
Ascorbic acid, USP, 100 kilos	kg.	9.00	10.50
spiny dried	kg.	9.00	10.50
Asphalt, black (see Barium solid)			
Asphalt, black (see Gristone)			
Asphalt petroleum cutback, tanks, E	Coast	88	-
emulsion, tanks, tankwagons, E	Coast	88	-
steam-refined, 40-300 penetration	ton	170.00	-
tanks, tankwagons	ton	170.00	-
steep roofing grade, bulk tankwagons	ton	175.00	-
Aspirin, USP, cryst. powd., 250-lb	lb.	1.95	-
dms, c.f., f.o.b.	lb.	1.95	-
10% starch granulation, white, 250-lb	lb.	1.87	-
dm. c.f., f.o.b.	lb.	1.87	-
10% starch granulation, white, same basis	lb.	2.80	-
Freight landed ship, identical quantities in N Y, Phila., Midland, Mich., Chicago and Louis		2.80	-
Atropine sulfate, USP, 50-lb.	oz	4.00	110
Avocado oil, dms	lb.	4.00	4.30
Azelaic acid, 50-lb bags, 11 c.f., f.o.b.	lb.	1.23	-
dms	lb.	4.80	-
Azo orange, bchs, divd	lb.	4.80	-
Azo yellow, 10 G, bgs, divd E of Rocks	lb.	4.40	-
Azo yellow pigment, bgs, same basis	lb.	2.45	-
Bactracin, USP, mini-sterile, one billion units or more	million units	6.30	8
Baetate, NF, 50-kilo dms	kg.	22.50	-
Barbitol-nitroform, NF, 50-kilo dms	kg.	23.00	-
Barite, dry-grd, Southam, off-color, coarse, bgs, c.f., f.o.b. mnes	ton	0.09	-
works, grt., white, ligs., c.f., f.o.b. works	ton	13	-
unbleached, extra-lime, pigment grade, c.f., f.o.b. works	ton	160.00	-
Barium carbonate, purty, blk, c.f.	ton	25	25.50
works, 11 equal	ton	510.00	-
bgs, same basis	ton	1.04	-
Barium chlorate, 100 lb, bgs, 1-10 dm. lots, works	ton	470.00	-
Barium chlorate, tech, cryt, dms, c.f.	ton	690.00	-
anhyd, dms, c.f., same basis, ton	ton	3.76	-
Barium chlorate, pure, cryt, 400-lb. dms, works	ton	46.00	-
Barium monohydrate, 55-lb. bgs, c.f., f.o.b. works	ton	33.00	-
works, 11 equal	ton	32.50	-
Barium chlorate, 100-lb. bgs, 11 milgro	ton	32.50	-

Bactracin, USP, raw-stereo, octahydrate	63.30	6
bags, or more million units	22.50	
Baclofen, USP, 50- μ l. cims., rilv.	23.00	
Darbitol-aquium, FM, 50- μ l. cims.		
Baite, dry-grd., Snuithin, anti-fouling, coarse, bps, c. f. o. l. m. m. c.	.09	
water-grd., white, bps., c. f.	1.3	
to b. works		
unbleached, extra-line, pigment grade, c. f. f. b. h. works	180.00	
Barium carbonatite, purif., blk., c. f.	.25	
works, lit. aquid.	.25	259
bps, same base		
photo grade, bps., same base as ton	510.00	
Barium chromite, 100 lb. cims., 1-10 dm. lvs. works	1.04	
Barium chlorate, tech., cym., c. f. t. works	470.00	
anhyd. drum c. f. o. basis, ton	690.00	
Barium chlorate, purif., cym. 400-1b. cims. works	3.76	
Barium manganate, 55- μ l. bps., c. f. f. o. b. works	46.00	
octahydrate, crysl., bps., same base basis	100 lbs.	
Thum, nitrate, 100-lb. bps., lit. work.	32.50	

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WEEK ENDING AUGUST 15, 1986

Carbon Black, low structure, bulk, c.i. works.	lb.	240	280
base, c.i. works.	lb.	270	290
Intermediate super-abrasion (SAF).	lb.	26	-
bgs., c.i. works.	lb.	28	-
super-abrasion (SAF), bulk, c.i. works.	lb.	31	-
bgs., c.i. works.	lb.	4050	-
semi-reinforcing (SRF), bulk, c.i. works.	lb.	210	-
bgs., c.i. works.	lb.	240	-
Carbon Black, thermal, medium, bgs. works.	lb.	30	30V
bulk, c.i. works.	lb.	32	34V
Carbon black oil, barga, l.o.b. Gulf refiners.	bbls.	10.50	12.50
L.o.b. Coast Refining, Gulf refiners.	bbls.	10.50	12.50
Carbon disulfide, l.c., l.o.b. works	lb.	4200	0
Carbon tetrachloride, Carg., consumers, dms., c.i., frt. add.	lb.	36	-
tech. dms., c.i., frt. add.	lb.	31	-
lark transport (min. 4,000 gals.) frt. add.	lb.	24	-
Carboxymethyl cellulose (see CMC).			
Cardanum oil, NF, bots.	lb.	7500	100.00
Cardolite, C.I., C.I. 100, 100-100	lb.	825	-
green, Guatemala, bgs.	lb.	925	975
Carmine, No. 40, NF, bulk, 100-100, lots or more, dms.	lb.	135.00	140.00
Carneaux wax, North Country No. 1, yellow, bgs., ton lots.	lb.	1.95	2.05
Ceara, No. 1, yellow, bgs., ton lots	lb.	1.75	1.90
North Country, No. 2, refined, bgs., ton lots	lb.	1.55	1.65
Carneaux wax, North Country No. 3, centrifuged, bgs., ton lots	lb.	1.10	-
North Country, No. 3, refined, bgs., ton lots	lb.	1.30	1.40
Powdered carneaux wax, 20 to 100 mesh, 20C per lb. higher			
b-Carotene, in vegetable oil semi-solid suspension, 450,000 A units per gram, 33% or more lb.		3275	-
b-Carotene, in vegetable oil, 500,000 A units per gram, 33% or more		4075	-
b-Carotene, dry beads, 10% 167,000 A units per gram 50-100 cns lb.		2685	-
alpha-Carotene, 25 per dms., syn.	lb.	4800	-
l-Carotene	lb.	7.00	7
Cast. sagrada, bulk, c.i.	lb.	1.00	-
Casem, imp. acid-precip., grd., 30-mesh, Australian, edible, same basis, c.i.	lb.	1.45	-
Australian, industrial, same basis, c.i.	lb.	1.395	-
Cassella acid, 303 mol. wt., dms., frt. add., 100% basis.	lb.	3.70	-
Cassia, Kentucky "A" bgs.	lb.	90	-
"B" bgs.	lb.	72	-
Cassia, raw, No. 1, Braz. tanks.	lb.	32V	-
USP-9.9 dms.	lb.	74	-
refid. dms., 5-9 dms.	lb.	78	-
blown, 5-9 dms.	lb.	75	-
decolorized, bodied, tanks.	lb.	74	-
dehydrated, un bodied, tanks.	lb.	85	-
Castor oil, acids dehydrated, dms.	lb.	1.10	-
ricinoleic acid	lb.	.79V	-
Castor pomace, 100% basis, load.			
L.o.b., Miami Fla.	lb.	154.00	-
Castoreum, nat., cns.	lb.	18.00	35
syn. cns.	lb.	11.00	-
Catchol, CP, 45-46 cns.	lb.	7.93	-
dms., l.o.b.	lb.	7.81	-
tech., bgs., 1% basic basis.	lb.	7.71	-
Cavuto potash (see Potash, cavuto).			
Cavuto soda (see Soda, cavuto).			
Cedrol oil, dms.	lb.	17.50	-
Cedrolwood oil, Texas, dms., cns.	lb.	3.50	4
Virginia.	lb.	3.70	-
Cedrol, prime dms.	lb.	4.25	5
Cedrolate, dms.	lb.	4.25	-
Cedrol, refined, Indian, bgs.	lb.	48	-
Cedryesed oil	lb.	50.00	59
Celufex acetate, powd., bgs., l.i., dms.	lb.	1.30	-
Cellulose acetate butyrate, powd., 17% butyl content, bgs., l.i., dms.	lb.	1.75	-
38% butyl content, bgs., dms.	lb.	1.69	-
55% butyl content, bgs., dms.	lb.	1.81	-
Cellulose gum, pure, high vis., bgs., 94,000-100,000 mv. max.	lb.	1.80	1
l.i., l.o.b. Hopedale, Va.	lb.	1.80	1
aid, low or medium vis., bgs., c.i., l.i., l.o.b. Hopedale, Va.	lb.	1.85	-
Celium concentrate (see Soda, celium).			
Celium hydroxide 50% CaO, dms.	lb.	6.40	1
77% CaO, dms. works.	lb.	6.40	-
Celium oxide, optical grade, bgs., 50-60 cns, l.o.b. or more	lb.	1.85	-
Cetylalcohol, NF, cns., l.i., dms.	lb.	89V	1
Chalk (see Calcium carbonate).			
Chamaeife Bowers, Hungarian, cns.	lb.	4.25	4
Florida, cns.	lb.	4.84	-
Roman, cns.	lb.	2.70	3
Syrian, whole	lb.	3.40	-
Chiahu, c.i., blue, Egyptian	lb.	545.00	-
blue, Hungarian	lb.	370.50	-
Chiodopodium oil, NF, cns.	lb.	15.00	-
Chitos acid, dry, cns., frt. add.	lb.	13.50	-
China (see Pepper, red).			
Chloroide anhydride, tech., dms., l.i., works.	lb.	1.50	-
Chloroide paraffin, 100% basis, c.i., bulk, dms., Zone 1.	lb.	48	-
50% chlorine, same basis.	lb.	48	-
90% chlorine, same basis.	lb.	48V	-
70% chlorine, same basis.	lb.	50-60	-
bgs., c.i., Zone 1.	lb.	39	-

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Hydrochloric acid, 20% Be, tanks, works, East	ton	58.00	65.00
Midwest	ton	80.00	70.00
Gulf Coast	ton	57.00	-
West Coast	ton	80.00	106.00
22% acid, same basis, East	ton	88.00	78.00
Midwest	ton	88.00	70.00
Gulf Coast	ton	83.50	-
West Coast	ton	100.00	115.00
NOTE: Prices vary and are either freight cost or freight equalized depending on producer and location.			
Hydrochloric acid, microfinized, 20% Be, tanks, works, East	ton	.70	-
Hydrochloric acid, microfinized, dms., 25 kilos or more, gram.	ton	.70	-
Hydrochloric acid, anhyd. (see Hydrofluoric acid)	ton	43.00	-
Hydrofluoric acid, same basis, 70% tanks, f.o.b. c.i., 100 lbs. equiv.	ton	100.00	140.00
Hydrochloric acid, 16-gal. dms., 11, works, 30% basis	lb.	151.00	-
tanks, 17% basis, works, 100	ton	100.00	-
Hydrogen bromide, anhyd. cys., gram, 30,000-lbs. f.o.b. works, 11	ton	7.00	-
Hydrogen chloride, anhyd., 50-lb. cys., c.i., works	lb.	.65	-
50-lb. cys., c.i., same basis	lb.	.62	-
Hydrogen chloride, anhyd., tube trailers, seller's trailer, min. 100,000 lbs. a year	lb.	.37	-
Hydrogen chloride anhyd., tanks, works	ton	.27	-
Hydrogen cyanide, liq., 99.5%, tanks, works	ton	270.00	-
Hydrogen fluoride, anhyd., tank cars c.i., f.o.b. tank	ton	.50	-
Hydrogen peroxide, 35% tech., tanks, works, 11, equiv.	lb.	.6875	-
50% tanks, 11, equiv.	lb.	.3225	-
80% tanks, 11, equiv.	lb.	.3225	-
70% tanks, 11, equiv.	lb.	.45	-
Hydroquinone, photo grade, consumer's c.i., 11, chd.	lb.	1.22	.13
tech. 11, chd.	lb.	2.54	-
Hydroxyacetic acid, tech., 70% tanks, Belle, W. Va.	ton	1.95	-
Hydroxylanthranium sulfate, dms., 11, f.o.b.	ton	.49 1/2	-
p-Hydroxybenzoic sulfonic acid (see p-Phenolsulfonic acid)	ton	.83	-
Hydroxybutyl methylcellulose (visc. 12,000 cps) 50 lb. bags, 11, c.i., 30,000 lb. min., chd., zone 1	ton	2.10	-
Hydroxycitronellal dimethyl acetal, dms.	ton	16.55	-
p-Hydroxydiphenylamine, dms., 11, f.o.b. works	ton	9.10	-
Hydroxycitronellal, anhyd.	ton	4.40	-
pure, dms.	ton	13.80	-
extra grade, dms.	ton	14.80	-
syn. dms.	ton	9.50	-
Hydroxyethyl cellulose, 11, chd.	ton	2.07	2.12
Hydroxyethyl methylcellulose (visc. 5,000 through 45,000 cps) 50 lb. bags, 11, c.i., 30,000 lb. min., chd., zone 1	ton	2.73	-
Hydroxypropyl methylcellulose (visc. 40,000 U.S.P. (visc. 40,000 through 15,000) 50 lb. bags, 11, c.i., 30,000 lb. min., chd., zone 1	ton	2.87	-
Hydroxypropyl methylcellulose (visc. 50,000 U.S.P. (visc. 50,000 through 100,000) 50 lb. bags, 11, c.i., 30,000 lb. min., chd., zone 1	ton	2.98	-
Hydroxypropyl methylcellulose (visc. 10,000 through 15,000 cps) 50 lb. bags, 11, c.i., 30,000 lb. min., chd., zone 1	ton	2.17	-
Hydroxypropyl methylcellulose (visc. 30 through 100 cps) 50 lb. bags, 11, c.i., 30,000 lb. min., chd., zone 1	ton	2.64	-
8-Hydroxyquinoline (see Oxidizing Agent)	ton	3.15	-
Hydrophosphoric acid, 85% tech., dms., c.i., works	ton	3.15	-
I			
Ichthammol NF, 200-400 dms.	lb.	4.25	4.50
Iminoacetic acid, 98% min. dms., c.i., 11, works	ton	3.00	-
Indole, dms.	ton	25.50	-
Inositol, 50-lb. cys., 1,000 kilos or more, 1 o.b. works.	ton	17.50	22.00
Iodine, crude, dms.	ton	13.50	18.00
Iodine, brog. bgs, 1 c.i., 100 lbs.	ton	14.21	14.59
Iodochlorohydroquin., USP, XVI 50-100 kms., 100-499 lbs. kit, alt.	ton	36.00	45.00
Iodoform, 100-499 lbs. kit, alt.	ton	36.00	45.00
Iodolane, 100-499 lbs. kit, alt.	ton	24.00	-
s-lanone, dms.	lb.	18.20	-
p-lanone, dms.	lb.	13.10	-
Ipecac root, whole, bgs.	ton	25.00	-
Iresh moss, ball packed, dms.	ton	.75	.80
Iron blue, alkali-resistant, bgs, 1 c.i., 100 lbs. div. E.	ton	2.70	-
Iron blue, brog. bgs, 1 c.i., 100 lbs.	ton	2.00	2.20
Iron blue, 100-499 lbs. kit, alt.	ton	2.00	2.20

iron, purified, powdered, pellets, 10-100-mesh		
lots	1.00	-
iron oxide black, syn. bgs., c.i.		
equivalent	.88%	.78%
iron oxide, brown, syn. bgs., c.i.		
equivalent	.88	.78%
iron oxide, metallic brown, l.t.l., bgs., frt. equivalent	.13	.15
iron oxide, nat. red, dom. pure, bgs., c.i. works	.275	.40
iron oxide, yellow	.18	-
syn. bgs., c.i., frt. equivalent	.65	.71
iron oxide, buff, nat. dom. bgs., c.i., l.t. works, light	.73	.80
dark	.80	-
other shades, bgs., c.i., frt. equivalent	.50	.55
isatoic anhydrides, bgs., f.o.b. works	1.40	-
isobutyl alcohol, 85% tanks, frt. acid	1.44	1.48
isobornyl, 100 lbs.	7.26	-
isobornyl acetate, dms.	.80	1.15
isobutyl acrylate, solvent grade, tanks, frt. acid	.45	.48
isobutyl acrylate, tanks, frt. acid	.29	-
isobutyl alcohol, tanks, divd.	.71	-
isobutyrene, 99%, tanks, f.o.b. works	.32	-
isobutyl isocrotylate, tanks, f.o.b.		
equivalent	.42%	-
isobutyl methacrylate, frt. acid	.87	-
isobutyl phenylethane, dms.	3.10	3.50
isobutyl seleniate, dms.	3.45	-
isobutylaldehyde, tech., dms., c.i., divd.	.43	-
tanks	.35	-
isobutyric acid, dms., c.i., l.t., divd.		No Prices
isobuts, same basis	.76	-
isobutyronitrile, dms., c.i., f.o.b. works frt. collect.	.84	-
isobuts, same basis	.76	-
isoamylene, tanks	5.20	5.60
isoniazid, powder	12.00	-
isotonic acid, hydrazine (see isoniazid)		
isononyl alcohol, dms., l.t.	.48	-
isooctyl alcohol, tanks, divd.	.41	-
isophenone, tanks, divd.	.84	-
isopenthalic acid, 99%, bulk, f.o.b., Joliet, Ill., min. frt. ali.	.48	-
isopropylaniline, bgs., l.t. works	2.65	-
isopropyl acetate, tanks, divd.	.48	-
isopropyl alcohol, anhyd., 99%, tanks, divd.	1.37	-
refld., 95%, tanks, divd.	1.31	-
refld., 91%, tanks, divd.	1.25	-
isopropyl ether, tanks, divd.	.44	-
crude, tanks, divd.	.37	-
isopropylamine, tanks, divd.	.44	-
isopropyl myristate, dms., l.t., E.-I.	1.19	1.50
isoteoric acid, reld. bgs. l.t.	1.45	1.45

J acid, paste, dms., works, 100% ba-		
sils.....	kilo	4.75
japan wax, ca.....	lb.	5.50
Jolcbe oil, 55-gal. dms., f.o.b. Arizona		5.60
producing point.....	gal.	55.00
Juniper berry oil, Italian.....	kilo	47.00
		-

Kacilin, water washed, fully calcined, bags c.i., 1 lb. Georgia	265.00	-
NF pwtd., colloidal, bacteria controlled, 50 lb. bags, 5,000 lb. lots		24
Kacilin, uncalcined, No. 1 coating, bulk, c.i., Lab., Georgia	94.00	-
No. 2 coating	75.00	-
No. 3 coating	73.00	-
No. 4 coating	70.00	-
filler, gen'l. purpose, same basis	58.00	-
determinated water washed, uncalcined paint grade 1 micron avg., same basis	182.00	-
dry-grd., air-facted soft, same basis	60.00	-
Kareys gum, No. 1, powder, bbls	2.25	-
No. 2, powder, bbls	1.95	-
Kola nuts, box		

L				
Laquer diluent, petroleum, 140F.				
200F. b.r., t.o. New Jersey				
and New York			1.25	
Houston, Texas			1.29	
Laquer diluent, petroleum 200F.				
240F. b.r., tankcars, New				
York and New Jersey			1.20	1.25
Houston, Tex.			1.12	
Lactic acid, food grade 88%, t.o. l.o. b.				
works.			1.06	
50%, t.o. int. equivd.			.82	
tech. 50%, t.o. int. equivd.			1.03	
Lactose, edible, reg. bgs. c.t.				
works.			.22	2.00
Lactose, USP, reg. dms. c.t., int.				
equivd.			.56	.60
Lactose, USP, spray dried, bgs., l.				
work.				

Lake C, rad. toner. (red 53) bbls. frt. aid.	5.70	-
Lincolin, anhyd., cosmetic. 400-lb. dms. works.	1.18	1.25
Lincolin, pharmaceutical. 400-lb. dms. works.	1.15	-
lin. (under 2% i.a.a.) 400-lb. dms. works.	1.08	1.13
Lard (See Oils, Fats & Waxes market report.)		
Lard oil, No. 1, dms., c.i., 1.0 lb.	34	-
Lard, same basic, 1.0 lb.	28	-
Lard oil, extra, winter-strained, dms. c.i.	41	-
tanks, same basis.	33	-
prime, burning, dms., c.i., same base.	43	-
Chicago.	-	-
prime, burning, tanks, same basis.	35	-
exl.	35	-
NOTE: 300 M. rad. 1 1/2 c. higher, except Texes, 2c., and Wex		
Coast 3c. higher.		
Lead acetate, Turkey.	60	60
Laurent's acid, dms., f.o.b.	3.85	-
Lauric acid, com., pure bgs., c.i.	65	71
Lauric aldehyde (aldehyde G-12).	7.75	-
n-Lauryl methacrylate, dms., c.i., works.	1.72	-
Lavander oil, Atrabals, 30-32%, dms. lb.	4.00	-
Lavender flowers, ord.	85	75
medium, lbs.	80	90
select, lbs.	1.10	1.19
Lavender flower oil, NF, French, 40-42%, ester, ons.	9.25	13.50
spike, Spanish, dms.	15.00	22.00
Lead acetate, pure, flake, c.i.	46	-
dms. works.	37	-
tech., flake, t.i., 400lb. dms. works.	87	-
Lead blue, basic, sulfate, bbls., c.i., ship, f.o.b.	3.25	-
Lead carbonate. (See Lead white basic carbonate).	-	-
Lead chloride, 400-lb. dms. works.	1.66	70
Lead dioxide, tech., powd., 200-lb. dms., l.i., works.	86	-
Lead flucobalt, tech., dms. works.	1.18	1.81
Lead metal, dmd.	1.18	1.81
Lead monosulfate, milled, bgs., c.i., l.i. works.	5.81	-
coarse, bgs., c.i., same basis.	5.71	-
Lead naphenate liq., 24% Pb, dms. frt. aid.	83	-
Lead nitrate tech., cryst., 400-lb. dms., l.i. works.	32 1/2	-
Lead peroxide (see Lead chloride).	-	-
Lead red, 95% Pb ₃ O ₄ , or less, bgs., c.i., works.	37	-
Lead red, 97% Pb ₃ O ₄ , bgs., c.i., works.	37 1/2	-
Lead red, 98% Pb ₃ O ₄ , bgs., c.i., same basis.	37 1/2	40 1/2
Lead silicate (see lead white, basic silicate).	-	-
Lead stichromate, bgs. lb.	35	-
Lead sulfate (see Lead, blue, basic sulfate and Lead, white, basic sulfate).	-	-
Lead, white, basic carbonate, bgs., c.i., frt. aid.	82	-
Lead, white, basic, silicate, bgs., c.i., same basis.	87	-
Lead, white, basic sulfate, bgs., c.i., same basis.	85	-
Leclithin, edible, tech., bleached, non-ret. dms., c.i., works.	36	-
unbleached non-ret. dms., l.c.i., same basis.	34	-
edible, tech., bleached, non-ret. dms., l.i., works.	28	-
unbleached, non-ret., dms., l.i., same basis.	28	-
Lemon oil, Argentina.	14.00	-
Brazil.	6.50	7.00
Chili, USP, dms.	9.00	9.35
Italy.	12.50	-
Lemon grass oil, dms.	1.25	-
Guatemala, dms.	9.25	-
de-Lauche, dms., 1 kilo works.	60.00	90.00
Licorice root, whole, lbs.	40	50
gran. lbs.	70	90
powd., lbs.	95	-
Lime acetate (see under Ammonium or Sodium Acetate tonate).	-	-
Lime, chemical, pobbie (quicklime), bbl., 50.00 lbs. works, l.o.b. plants.	38.00	45.00
Lime, chemical, hydrated, bbl., same basis.	48.00	50.00
ton.	64.00	67.00
gals., same basis.	68	-
Lime, NF, pure, 100-lb.	68	-
oil, dist., Mexican, dms.	6.00	-
Haitian, dist.	8.00	-
expressed, dms.	17.50	-
Lime sesls (see Calcium d-Limonene).	-	-
Linseed ex bole de rose oil, dms.	6.35	-
syn. 98-100%, dms., f.o.b. works.	2.93	-
Linseed oxide, syn., 55-gal.	7.75	-
Linylol stichromate, syn., 55-gal.	18.00	21.00
syn. 98-100%, dms., l.o.b. works.	3.10	-
Linylol bismaleate, syn., 55-gal.	8.00	-
Linylol trimaleate, syn., 55-gal.	69.85	-
Linylol formate, syn., 55-gal.	7.75	8.50
Linylol isobutyrate, syn., 55-gal.	6.80	6.85
expressed, dms.	13.10	-
99.9% tech., dms., f.i.	6.50	-
Linylol propionate, syn., 55-gal.	7.90	-
Linseed flowers, with leaves, lbs.	78	80
without leaves, lbs.	90	1.10
Linseed meal (See Oils, Fats & Waxes market report).	-	-
Linseed oil fatty acid, dist., dms.	80	85
ton.	33	35
Utharg.	38 1/2	39
works.	-	-
Lithium borate, anhyd., dms., ton soln., dmd.	6.27	-
soln., same basis.	4.00	-
Lithium carbonate, powd., bgs., c.i., l.i., dmd.	1.60	-
Lithium chloride, anhyd., c.i., l.i., soln., dmd.	3.32	-

Lithiumhydride, c.i. t.l. dwd. 10,000 or more	23.50	-
Lithium hydroxide, monohydrate, dms. c.i. t.l. dwd.	1.93	-
Lithium hypochlorite, tech. dms. c.i. t.l. dwd.	1.07	-
Lithium metal, 1,000-lb. lots or more, dwd.	22.70	-
Lithium nitrate, tech. dms. 100-lb. lots	3.25	-
Lithium stearate, bgs. c.i. t.l. dwd.	1.01	-
Lithium sulfate, anhydrous, t.l. dwd.	3.09	-
Lithol red toner, barium dms. t.l. dwd.	3.27	-
Calcium dms. same basis	3.50	-
Lithol sulfur toner (see 57), red and blue, t.l. dwd.	5.80	-
Least bean gum, powd. bgs.	6.00	675
2,4 Lutidine, dms. t.l. fr. equald	5.75	-
Lycopodium, 50-lb. dms. t.l. dwd.	8.00	100
L-Lysine monohydrochloride, feed grade, 10,000-lb. dwd.	1.35	10
M		
Mace, #2 Indian, cuttings	4.95	50
Silau #2	5.60	570
Magnesia, tech. light, neoprene grade, bgs. c.i. t.l. dwd.	.75	21
Magnesite, syn. tech., chemical grade, bulk, c.i. t.l. works.	330.00	-
bags, c.i. t.l., same basis	365.00	-
deacidured, bulk, same basis	392.00	-
sls. c.i. t.l. works.	409.00	-
bgs., same basis	409.00	-
Magnesia, nat. tech. heavy, 85%, 150 mesh, bulk, c.i. t.l. f.o.b.	235.00	-
Nev.	262.00	-
90%, 325 mesh, same basis	280.00	-
Magnesium bromide, 80-lb dms., hexahydrate	2.50	-
Magnesium carbonate, light, tech. bgs. c.i. t.l. works.	73	71
U.S.P. lvs. bgs. c.i. same basis	74	81
USP, heavy, bgs. c.i., same basis	83	-
Magnesium chloride, anhyd., 92%, flake or pebble dms. c.i. works.	124	15
Magnesium chloride, hydrous, 99%, flake, bgs. c.i. works.	144	-
Magnesium gluconate, 100-lb dms. f.o.b. works, E	4.25	-
Magnesium hydroxide, NF, powd., dms. c.i. t.l. works.	.78	-
equald	1.00	-
Magnesium lauryl sulfate, tanks, f.o.b. works	22	3
Magnesium metal, 99.9%, ingots, 10,000-lb. lots or more f.o.b. Fairport, Tex.	1.53	-
the casting alloys	1.29	13
Magnesium nitrate, tech. flake, 250-lb dms. t.l. works.	.32	-
Magnesium oxide, USP, light, bgs.	1.65	-
works, f.t. equald	1.84	-
heavy, dms. c.i. same basis	1.85	-
Magnesium oxide, tech. (see Magnesia)	1.85	-
Magnesium phosphate, tribasic, tech. 80-lb bgs. f.o.b.	1.00	-
Magnesium silico (see Talc)	-	-
Magnesium silicofluoride, bgs. c.i. t.l. works.	1645	-
Magnesium stearate, bulk, t.l. works	95	1
Magnesium sulfate, 20-lb. (gypsum salts), tech. bgs. c.i. works.	14	-
bulk, same basis	13	-
USP, crystal, bgs. same basis	134	-
USP, crystal, bulk, same basis	144	-
Magnesium sulfite, 17% Mg, (synthetic monohydrate), tech. bgs. t.l. works	.80	-
CP, same basis	1.25	-
Magnesium sulfite, anhydrous, CP bgs. t.l. works	1.75	-
Magnesium sulfite tribasic, tech. bgs. t.l. works	.45	-
Magnesium sulfite, USP, powd., lb. dms. 5,000-lb. lots	.38	-
USP, nitorized powd., dms. 375-lb. lots	.83	-
Malathion, tech. dms. t.l. works	1.82	-
Maleic acid, crystal, powd., drums, 100 kilos, f.o.b.	9.20	-
drums, tone, f.o.b.	2.80	-
Maleic anhydride, bgs. t.l. works	.55	-
equald	.53	-
tanks, works, fr. equald	.61	-
Maleic acid, purif. and food grades, 60-lb. bgs. t.l. dwd.	.61	-
Mandelic acid (see Glyceric acid, lvs.)	-	-
Mandelic acid, dms. 1,000 kilo lots	6.00	50
Manganese acetate, dihydrate, dms. dwd.	.43	-
hydrate, dms. t.l. dwd.	1.48	-
Manganese borate printing ink drier	.80	-
Manganese borate, tech. dms.	-	-
Manganese carbonate, technical	1.05	-
Manganese chloride, 40% Mn, 20,000-lb. lots or more, works	.61	-
Manganese chloride, anhyd., 20,000-lb. lots or more	.61	-
Manganese dioxide, 90% Mn, African grade, 74%-76% MnO ₂ , 100-lb. bgs.	200.00	380
works	260.00	-
84% MnO ₂ , same basis	-	-
Manganese dioxide, 90% Mn, battery grade, 50%-62% MnO ₂ , 100-lb. bgs. c.i. works	.70	-
chemical, ferrite grade, same basis	.40	-
Manganese gluconate, FCG grade, 100-lb dms. f.o.b. works	3.60	-
Manganese hydrate dms. dwd.	.55	-
Manganese hypophosphite, NF, dms.	6.75	-
Manganese metal, electrolytic, No. 1 chip, bulk, c.i. works	334	-
dms. c.i. works	345	-

Manganese acetate, fused, 31% Mn.		
dms., fr. alld.	lb.	341
prop. 67-7% Mn dms.	lb.	42
Manganese sulfate, 80% Mn.		
25 id ba, 75-78% MnSO ₄ .		
25 id ba, 50-ton cars, dms.	ton	280 00
E of Miss.	ton	245 00
bkt, hopper cars, same basis.		
Manganese sulfate, 28% Mn, gran.		
ba, c. l. l. works.	ton	330 00
Manganese tetrachloride, 98% Mn, dms.		
fr. alld.	lb.	.60
Mandelal, cornst. powder, dms.	l. f.	
sorbia.	lb.	3.02
Marfan, French	lb.	.86
Egyptian	lb.	.60
MBT (see Mercaptobenzothiazole)		
MST (see Mercaptosulfonethyl disulfide)		
MUTS (see Dithymylmethane 4,4'-di-isocyanate)		
Melanine, bks., c. l. l., 40,000-lb.		
mn. l.o.b. works.	lb.	51 1/2
bkt, c. l. l., same basis.	lb.	.50
Melonic-formaldehyde resin, p. l. l.		
fr. alld.	lb.	.55
molding compounds, same base.		
fr. alld.	lb.	.46 1/2
Metaloid oil, cruds, tanks, works Atlantic Coast	lb.	.14
Oil ports, same basis.	lb.	.14
Metal, natl., USP, Brazil, ferric and		
regular crystals, spol. cs.	cs.	6.75
syn. USP, recomd., 100-450 lb.	lb.	9.00
2-Mercaptoethanol, bks., l. l.		
works, fr. alld.	lb.	1.25
2-Mercaptoethanethiol disulfide l. l.		
dms., works, fr. alld.	lb.	1.33
Mercuric chloride HF, gran. powder,		
100-lb. dms., l.o.b. works.	lb.	6.50
Mercuric oxide, red, purif., 100-lb.		
dms., l.o.b. works.	lb.	7.00
tech., 100-lb. dms., same basis.		
yellow NF, 100-lb. dms., same basis.		
tech., 100-lb. dms., same basis.		
Mercurous chloride (see White precipitates USP XV)		
Mesitoxides, tanks, dms.	lb.	.46
Methylene acid, glassy, 99%, dms.		
l. l. in liquid.	lb.	.87
tanks, work, fr. equiv.	lb.	.76
d-Methamphetamine hydrochloride,		
dms.	lb.	12.00
d-Methamphetamine hydrochloride,		
dms.	lb.	4.50
Methanol, syn., tanks, 400 gals.		
f.o.b. producing point, Gulf Coast.	gal.	52
Methionine (see Methionine methionine)		
Methionine hydroxyanalog, dry,		
88% activity l. l., fr. alld.	lb.	.80
liquid, 88% activity, l. l. fr.	lb.	.88
d-Methionine (see Racemized methionine)		
Methoxy-carb., 50% wettable powder,		
Isodan, dms., c. l.	lb.	2.05
Methyl acetate, natl. dms., c. l.		
div. E.	lb.	9.40
Methyl acetate, hydrogenated, non-ret.		
l. l. dms., l.o.l., same basis.	lb.	10.00
Methyl acetoacetate, Eastw. dms.		
bkt.	lb.	.85
Methyl acrylates, tanks, dms.		
fr. alld.	lb.	68.50
Methyl alcohol (see Methyl alcohol)		
Methyl amyl alcohol, tanks, dms.		
fr. alld.	lb.	.85
Methyl amyl ketone, bs. dms., l.o.b.		
antiradiation, tech., dms.	lb.	.54 1/2
Methyl benzoate, dms.		
98.5% sp. grade, dms., l.o.b.	lb.	1.41
Methyl bromide, dist., tanks, 14,000		
bs. mn. fr. alld.	lb.	.25
Methyl cellosolve, premium, visc.		
400 through 4,000 cps 50 lb.		
bags, l. l. c. 30,000 lb., min.	lb.	.56 1/4
div. zone 1, same basis.		
Methyl cellosolve, premix, USP, visc.		
15 cps 50 lb. bags, u. l.	lb.	2.73
30,000 lbs., div. zone 1.	lb.	2.81
Methyl cellosolve, premix, USP, visc.		
4,000 cps 50 lb. bags, u. l.	lb.	2.24
30,000 lbs., div. zone 1.	lb.	2.24
Methyl cellosolve (visc. 15 to 25 cps) 50		
lb. bag, div. zone 1, c. 30,000 lb.	lb.	2.82
min. div. zone 1.	lb.	.20
Methyl chloride, indust. tank, tanks,		
l.o.b. works.	lb.	.41
Methyl chloroform (see 1,1,1-Trichloroethane)		
Methyl chromate, dms.		
Methyl cresol, dms.	lb.	.485
Methyl ethyl ketone, tanks, div. E.	lb.	3.00
Methyl formal, 25-lb. cans.	lb.	6.66
Methyl formate, pure, non-ret. dms.		
tanks, same basis.	lb.	.41
tech., tanks, works.	lb.	.20
Methyl heptanoate, syn. 50-gal. dms.		
fr. alld.	lb.	.31
Methyl heptanoate, pure, 50-gal. dms.		
fr. alld.	lb.	14.50
Methyl heptin carbonate, dms.		
fr. alld.	lb.	.730
Methyl laurate, dms., dms.		
Methyl hydrosulfonate (see Methylparman)		
Lauryl, tanks, dms.	lb.	7.30
Methyl isocyanate, tanks, dms.		
Methyl isobutyl carbonyl (see Methyl amyl alcohol)		
div. zone 3 (Calf.)	lb.	.51
div. zone 3 (W. of Rock).	lb.	.38
Methyl isopropyl, 25-lb. cans.	lb.	6.60
Methyl methacrylate, tanks, dms.	lb.	.82
Methyl naphthalene, cryst.		
USP, 500 kilograms, l.o.b.	kg.	14.00
Methyl paraffins, 100 kg.	kg.	10.14
Methyl phenylacetate, dms.	lb.	9.70
Methyl phenylcarbazole, dms.	lb.	1.66
N-methyl-2-pyrrolidone, tanks, l.o.b.	lb.	1.85
dms., c. l. l., same basis.	lb.	1.28
Methyl roseamine chloride, USP, l. l.	lb.	1.34
Methyl salicylate, NF, 1000-lb.	lb.	5.50
Methyl stearate, tanks, dms.	lb.	1.79
Methyl violet (see Methyl roseamine chloride)		
Methyl violet 10R, methylparaffins, tanks, dms.	lb.	1.79

[illegible][illegible]

CHEMICAL PRICES

WEEK ENDING AUGUST 15,

49	Oleum (see Sulfuric acid, fuming)	
	Oleum gum, tars, bgs.	2.10
	Olive oil, edible, Spanish, dms.	8.20
	Italian B-type	5.76
	Olive, crude, works	12.50
	50 mesh, works	16.00
	100 mesh, works	20.00
	Opium, USP, gran. powd. 25-lb. tobs.	125.00
	Orange oil, expressed, USP, Calif., dms. 10-lb. plant	1.20
5.76	expressed Valencia, dms.	1.00
	Calif. dist., cns. 10-lb. plant	.40
	Florida, dms.	.80
50.00	Brazilian, 10-lb. plant	1.20
	West Indian, bitter, NF X, cns., dms.	8.50
	Orange peel, bitter, Haitian bla.	.38
	Oregano, Greece, 304M	1.15
	Turkey	1.15
	Mexico	1.05
5.50	Origanum, Spanish, cns.	35.00
	Oris root, Florentine, bla.	4.00
	powd. bbs., bla.	4.50
	Verona	3.00
	powd. bbs., dms.	4.80
	Oxalic acid, refd., pure, bgs.	.15
	Oxalic acid, bgs., oil, works	.44
	o-Xynaphtholic acid, dms. works	.15
	tech.	2.55
	Oxyquinoline base, pure, 1,000 lbs., frt. ald.	8.00
	Oxyquinoline sulfate, 100 lbs. frt. ald.	4.00
90	P	
	Palladium metal, works	138.00
	Palm oil, (see Oils, Fats & Waxes Market Report)	
	Palm oil acid, chl-dist. dms.	.10
	tanks	.10
	s.d. dms.	.10
	tanks	.10
	Palm kernel oil, bulk, o.i.f., U.S. ports	36.00
34	Palmistrol oil, Indian dms.	36.00
	Palmistrol acid, 80% tech. bgs.	.10
	tanks	.10
	Papevane hydrochloride, NF powd., imp. bulk	66.00
	Perilla, Hungarian, 100 AU bgs.	.10
	Spanish, 170 AU bgs.	.90
	Paraffin, fully-refd., 127-130°F., ASTM, tanks, refly	2.00
	150-155°F., ASTM, tanks, refly	2.00
	140-145°F., ASTM, tanks, refly	2.00
	150-155°F., ASTM, tanks, refly	2.00
1.46	slack wax, 5% oil, tanks refly	1.10
	12% oil, tanks refly	1.10
	20% oil, tanks refly	1.10
	AMP temperatures are arbitrary 3°F. higher	
	Parafomaldehyde, 91%, flake, bgs.	2.00
	oil, 1 l. dms.	.30
	95% powd., bgs. oil, 1 l. dms.	.30
	Parafinoid, tech., 95% 55-gal. dms.	.70
	1 l. dms.	.70
	tanks, divd. E.	1.75
	Paraffin, ethyl, dms.	3.75
	Paraffin methyl (see Methyl paraffin)	3.75
	Para toner, red, bbs.	3.75
	chlorinated, (red 4) bgs.	3.75
1.45	Patchouli oil, Indonesian, dms.	20.00
	Peanut kernel oil, USP (see Apricot kernel oil)	20.00
	Peanut meal (see Oils, Fats & Waxes market report)	
.57	Peanut oil (see Oils, Fats & Waxes market report)	
	Pectin dms., NF, citrus, powd., 100-lb. tobs.	3.30
	Pelargonio acid, nat., tanks, min. frt. ald.	.70
.85	syn. tanks, 10-lb. frt. ald.	.70
.55%	Pentolite, potassium salt, 10-lb. bbls.	20.00
benzene hy-	Pentolite, procaine, billion 20-billion units, bulk	36.00
27.50	Pentacyclopent, dms.	5.50
2.85	Pentachloro, 10-lb. bgs.	1.10
	oil, Wicks, Kan.	1.10
	Pentacyclopent, tech., bgs., oil, 10-lb. frt. ald.	.70
	Pentacyclopent, oil, 10-lb. bgs. (see Oils, Fats & Waxes market report)	
	Pentacyclopent trisulfate, 1 l. dms.	1.50
	10-lb. works.	1.50
	Pentachloro, dms., 100 lbs.	14.00
	in acid.	14.00
2.30	Pentachloro-sodium, dms., 100 lbs. or more, divd.	14.00
	Pentylene tetrazolol, NF, dms., 200-lb. tobs.	32.00
	Pepper, black, Brazilian, bgs.	1.10
	Lampoon, bgs.	1.10
	Meister, bgs.	1.10
	Tellico, bgs.	1.10
.175	Pepper, red, Chinese Fushion size bgs.	1.10
	Meister, bgs.	1.10
	Lang, bgs.	1.10
.37	Pekolan, dms.	1.10
.76%	Pekolan, dms.	1.10
	Pepper, white, Munko, bgs.	1.10
	Papaverine sulfate, imp., dms.	2.00
	Papaverine oil, Macrae.	11.00
.56	Papaverine	11.00
.49	Paraffin	11.00
.41	Paraffin	11.00
	syn. dms., 10-lb. works	7.00

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WEEK ENDING AUGUST 15, 1981

	Oleum (see Sulfuric acid, fuming).	lb.	2.10	-
	Oleum gum, bars, bgs	gal.	8.20	-
	Olive oil, edible, Spanish, dms.	gal.	5.75	-
	Italian B.S.A.	gal.	5.75	-
	Olive, crude, works.	ton	12.00	-
	20 mesh, works.	ton	16.00	-
	Oil meal, U.S.P., gran. powd.	ton	20.00	-
	Copium, USP, gran. powd.	25-kilo lots	125.00	-
	Orange oil, expressed, USP, Calif., dms., l.o.b.s. plant.	lb.	1.20	-
	expressed Valencia, dms.	lb.	1.00	1.20
	Calif. dist. cons. l.o.b. plant.	lb.	.40	-
	Florida, dms.	lb.	.50	.55
	West Indan, Rivier, N.F. X, dms.	kilo	1.20	-
	Brazilian, dms.	lb.	8.50	-
	Orange peel, bitter, Italian bla.	lb.	.38	-
	Oregano, Greece, 30M	lb.	1.15	-
	Turkey	lb.	1.15	-
	Originant, of Spanish, one	kilo	35.00	-
	Onion root, Florentine, bla.	lb.	4.00	-
	powd., bla., bla.	lb.	4.80	5.00
	Venona bla.	lb.	3.00	-
	powd., bla., bla.	lb.	4.50	5.00
	Curcary was, refid., pure, bgs	lb.	3.25	3.35
	Oxalic acid, bgs., c.l., works	lb.	.44	-
	b-Oxyacaphtholic acid dms. works, tech.	lb.	2.55	-
	Oxyperoxide base, pure, 1,000 fr. ald.	lb.	8.00	-
	Oxyquinoline sulfate, 100 lbs. frt. ald.	lb.	4.00	-

P

	Palladium metal, works.	-	Troy-oz.	138.00	
	Palm oil, (see Oleo, Fat & Waxess market report)	lb.	31%	-	
	100 mesh acid, dib-dist dms.	lb.	.30	-	
	tanks.	lb.	.42	-	
	s.d., dms.	lb.	.32	-	
	tanks.	lb.	.48	-	
	Palm kernel oil, bulk, a.f.f. U.S.	ports	lb.	.11	
	Palmoseal oil, Indian dms.	kilo	36.00	-	
	Palmistole, 90%, tech., bags.	lb.	.51	-	
	tanks	lb.	.53	-	
	Paraffin, fully refined hydrocarbons, imp. bulk	lb.	66.00	-	
	Paprika Hungarian, 100 AU bgs.	lb.	.80	-	
	Spanish, 110 AU bgs.	lb.	.80	-	
	Paraffin, fully refined, 127-130° ASTM,	lb.	.29	-	
	130-135°F., ASTM, tanks, rety.	33%	-	-	
	140-145°F., ASTM, tanks, rety.	35	-	-	
	150-155°F., ASTM, tanks, rety.	41%	-	-	
	slack wax, 5% of tanks rety.	.19	-	-	
	12% oil, tanks rety.	.21	-	-	
	20% oil, tanks rety.	.18	-	-	
	AMP temperatures are an arbitrary % higher than ASTM				
	Parformaldehyde, 51%, tech., bgs.	lb.	.25%	-	
	l.d., dms.	lb.	.35%	-	
	95% powd., bgs., c.l., I.I. divid.	lb.	.78%	-	
	Parafundox, tech., 88%, 55-gal. dms.	lb.	.65%	-	
	l.d., divid.	lb.	1.75	-	
	Parathion, ethyl, dms., fr. ald.	lb.	3.75	-	
	Parathion methyl (see Methyl parathion)	lb.	3.75	-	
	Para thionated, rebble	lb.	20.00	22	
	chlorinated, (rod 4) bgs.	lb.	20.00	-	
	Parachloro, Indonesian, dms.	kilo	20.00	-	
	Peasch kernel oil, USP (see Apricot kernel oil)	lb.	3.30	3	
	Peanut meal (see Oleo, Fat & Waxess market report)	lb.	70	-	
	Pecuin dist., NF, 100-lb. lots	lb.	70	-	
	Pectinic acid, nat., tanks, min. frt.	lb.	20.00	25	
	alk.	lb.	20.00	-	
	Pentabon, procaine, sterile, 200-	lb.	36.00	-	
	billion-unit kits, b.c.	lb.	5.50	-	
	Pennyroyal oil, distilled, 50-lb. bgs., t.l.	lb.	.55	-	
	Pentastarch, tech., bgs., c.l., l.o.b.s.	lb.	.71	-	
	fr. ald.	lb.	1.50	-	
	Pentastarch, dist. and in-process (see Dipentastarch)	lb.	7.00	-	
	Dipentastarch (see Pentastarch)	lb.	14.00	-	
	Pentastarch trihydrate, t.l. dms.	lb.	32.00	-	
	l.o.b. works.	lb.	1.85	-	
	Pentastarch, dist., 100 lbs. or more.	lb.	1.85	-	
	fr. ald.	lb.	2.10	-	
	Pentastarch sodium, dms., 100 lbs. or more, dms.	lb.	1.85	-	
	Pentastarch, NF, dms.	lb.	1.85	-	
	Pepaper, black, Brazilian, bgs.	lb.	1.85	-	
	Lampoon, bgs.	lb.	1.85	-	
	Melanchol, bgs.	lb.	1.85	-	
	Pepaper, red Chinese Fudien ton bgs	lb.	1.85	-	
	Haines, bgs.	lb.	1.85	-	
	Ling bgs.	lb.	.78	-	
	Indigo G.B.G.	lb.	.98	-	
	Pestelin, duricidite, bgs.	lb.	2.65	-	
	Pepaper white, Mumok, bgs.	lb.	2.65	-	
	Pestelin leaves, imp. dms.	lb.	14.00	-	
	Pestelin oil, Madras, imp.	lb.	18.00	-	
	Pyreneol	lb.	11.00	-	
	Yakima	lb.	8.00	-	
	syn. dms., l.o.b. works	lb.	2.00	-	

WEEK ENDING AUGUST 15, 1986

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Potassium bifluoride, tech. dms., 11. works, fr. equiv.45	49		
Potassium bitartrate, NF, gran. powd., bgs.90	1.20		
Potassium borohydride, powd. dms., 100-1,000 lbs.	18.00	20.00		
Potassium bromate, gran. powd., 200-lb. dms., c.i. f.o.b.	1.06	-		
Potassium bromate, NF, gran. dms., c.i. f.o.b. works.	1.12	-		
Potassium carbonate, liq. 47% K ₂ CO ₃ tanks, t.w. works.	100 lbs. 15.40			
dms., c.i. 11. works.	100 lbs. 20.85			
calcined, 98-100% K ₂ CO ₃ , paper c.i. fr. or trucks	100 lbs. 32.50			
bgs., c.i. 11. works.	100 lbs. 36.40			
Potassium carbonate, hydrated, 85-89% K ₂ CO ₃ dms., 100 lbs. works.	100 lbs. 34.70			
bgs., c.i. 11. works.	100 lbs. 33.90			
Potassium carbonate, gran. purif., 400-lb. dms., 5-m. lots. ....	.40	.46		
Potassium carbonate, crystal, dms., 100 lbs. works. ....	.14%	-		
powd. dms., c.i. works. ....	.10	-		
purif., gran. 325-lb. dms., f.o.b. anping port. ....	.40	-		
Potassium chlorate, chemical grade, 98.95% KCl, bulk, c.i. f.o.b. ton	105.00			
USP crst. dms.	1.12	-		
USP gran. dms. ....	.87	-		
USP powd. dms. ....	.87	-		
Potassium chlorate, agricultural (see Potassium sulfate).				
Potassium chromate, purif., crystal, dms., works. ....	.57	-		
Potassium citrate, NF, gran. 200-lb. dms. ....	.93%	-		
Potassium cyanide, dms., 20,000-lb. lots or more, f.o.b. works.	1.32	-		
Potassium dichromate (see Potassium dichromate).				
Potassium fluoride, tech. dms., c.i. 11. works, fr. equiv.	1.40	1.42		
Potassium fluoride, anhyd., dms., 100 lbs.	1.68	-		
Potassium dichromate, gran. f.o.b. works.	1.45	-		
Price W. of Denver 4¢ per lb. higher.				
Potassium guano-sulfate, 300-lb. dms., 800 lbs. or more fr. equiv.	2.10	-		
Potassium hydroxide, tech. (see Potash, caustic).				
Potassium hydroxide, USP, pellets, 100-lb. dms., c.i. 11. works, fr. equiv.	1.28	1.31		
Potassium iodide, USP, 100-lb. dms., 1,000-lb. lots dms.	10.72	12.39		
ACS grade truckload.	11.32	13.65		
Potassium-magnesium sulfate, dist. bgs. works.	68.00	-		
basic 40% K ₂ SO ₄ and 55% MgSO ₄ bulk works.	59.00	-		
Potassium metabisulfate, gran. dms. 11. works. ....	.44	-		
Potassium muriate, 50-lb. dms., K ₂ O 2¢, bulk, c.i. S. A. fr. equiv., f.o.b. S. A. Canada.	44.00	45.00		
sulfate, fine sld., f.o.b.	48.00	47.00		
coarse, f.o.b. S. A.	49.00	50.00		
gran., f.o.b. S. A.	50.00	51.50		
Potassium nitrate, fert. grade, sld., 50-ton ct., divd. SE.	277.00	274.00		
prilled.	287.00	284.00		
tech., gran. bgs., c.i. min. 50 tons, divd.	470.00	-		
Potassium oxalate, neutral, tech., fine gran. 500-lb. dms., fr. equiv.	2.54	-		
Potassium pentaborate, gran. bgs., c.i. works.	1.01	-		
dms., same basis.	1.06	-		
Potassium pentaborate, gran. 100-lb. dms., 200-lb. lots, per lb. higher.				
Potassium perchlorate, dms., c.i. works. ....	.78	-		
Potassium permanganate, free flow-ing, bulk, hopper trucks, works.	1.09	-		
50-kg. dms., same basis.	1.20	-		
150-kg. dms., same basis.	1.17	-		
Potassium permanganate, USP, 50-lb. dms., 100 lbs. works.	1.38	-		
Potassium persulfate, 225-lb. dms., 24,000 lbs. or more, f.o.b. plant.	75.50	-		
d/1 same basis.	72.50	-		
Potassium pyrophosphate, technical, bgs., c.i. 11. works, E. fr. equiv.	43.75	47.25		
bulk, same basis.	45.00	46.50		
Potassium silicate, USP, gran. 200-lb. dms., 2,000 lbs. or more, works fr. aid.	1.52	-		
USP, powd., 300-lb. dms., 2,000 lbs. or more, same basis.	1.42	-		
Potassium silicate, USP, 25-50-2 Be, 2.5 ratio, dms., t.i. works.	18.90	-		
dms., c.i. 11. works.	25.90	-		
Potassium silicate, USP, 25-50-2 Be, t.o. t.i. works.	26.05	-		
40-40.5 Be, 2.1 ratio, dms., c.i. 11. works.	32.05	-		
Potassium silicate, electric grade, 30-30.4 Be, 2.1-2.2 ratio, dms., c.i. 11. works.	28.10	-		
solid or dms., 2.15 ratio, dms., c.i. 11. works.	33.10	-		
solid or glass, 2.5 ratio, dms., c.i. 11. works.	53.30	-		
"Ratio" indicates percentage by weight of SiO ₂ divided by percentage by weight of K ₂ O.				
Potassium silicofluoride, bgs., c.i. 11. fr. equiv. ....	.11%	.16		
Potassium-sodium tartrate, NF, gran. 300-lb. dms. ....	.80	1.20		
Potassium sorbate, 11. works.	2.20	3.10		
Potassium stannate, dms., fr. aid.	N.A.	-		
Potassium sulfate, agricultural grade, 100-30% K ₂ O sld., bulk, 400-lb. lots, f.o.b. works.	50.00	190.00		
Potassium sulfate, gran. purif., bulk, 400-lb. lots, f.o.b. works.	50.00	190.00		
Potassium tetraborate, gran. bgs., c.i. works. ....	.110	.115		
dms., same basis. ....	.115	.120		
Potassium tetraborate powder 150 per ton higher.				
Potassium thiocyanate, USP, crystal, 225-lb. dms., 5-m. lots.	4.01	.82		
tech. crystal, dms., 11. works. ....	.82	-		
Potassium titanate, c.i.s., c.i. 11. works. ....	.71%	-		
Potassium-titanium fluoride, tech. dms., 11. works, fr. equiv.	1.24	-		
Potassium-zirconium fluoride, tech. dms., 11. works, fr. equiv. ....	.78	-		
Prednisone USP, dms., 5 kilos or more.	1.03	-		
Prodisolone acetate USP, dms., 5 kilos or more.	1.12	-		
Prednisolone, anhyd., USP, dms., 5 kilos or more.	1.12	-		
Procaine hydrochloride, USP, amphoteric grade, 50-kilo lots or lots, fr. aid. ....	.45	-		
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, fr. aid. ....	.45	-		
Propionaldehyde, tanks, f.o.b. ....	.36%	-		
Propionic acid, syn. pure, tanks, divd. ....	.33	-		
N-Propyl acetate, tanks, divd. ....	.42	-		
N-Propyl alcohol, tanks, divd. ....	.42	-		
N-Propyl gallate dms., 100 to 2,000-lb. lots, divd.	11.50	-		
N-Propyl-p-hydroxybenzoate, USP, 500 kilos, f.o.b.	10.80	-		
tech., 500 kilos, f.o.b.	10.38	-		
Propyl paraben (see N-Propyl-p-hydroxybenzoate)				
Propyl thiourol, dms., 50-kilo lots or lots, divd.	65.00	-		
N-Propylene, dms., c.i. divd. ....	.75	-		
Propylene, polymer grade, 10-lb. Tex. and La. Gulf Coast points. ....	.14	-		
chemical grade same basis. ....	.15	-		
Propylene glycol, indust. tanks, f.o.b. U.S. ....	.43	-		
USP, tanks, f.o.b. E. ....	.43	-		
Propylene glycol monomethyl ether, tanks, divd. ....	.76	-		
Propylene oxide, tanks, f.o.b. works, fr. equiv. ....	.06	-		
Pumilum seed, USP powd. bgs.	1.38	-		
Pumice, com. fr. aid.	270.00	-		
medium, 0.1-1% bgs., ton lots.	300.00	-		
coarse, 2-4% coarse, bgs., ton lots.	300.00	-		
Pumice, imp. Italian, lins. bgs., ton lots f.o.b. East Coast.	280.00	-		
medium, bgs., ton lots. f.o.b. East Coast.	350.00	-		
coarse, lins. ton lots. f.o.b. East Coast.	300.00	-		
Pyrazole red (red 38), dms., works.	5.25	-		
Pyrethrum flowers, fine grd. 0.9% pyrethrins, ton lots, fr. aid.	1.91	-		
Pyrethrum, purif., 20% pyrethrins, dms., works.	37.50	-		
Pyridine, reid., 2-dag, c.i. works.	5.90	-		
tanks.	5.70	-		
Pyridoxine hydrochloride, USP, 100 kilos or more, divd.	28.00	-		
Pyrite, S. Canadian 4.5-5.0% S. mines.	4.50	-		
Pyrocalcic acid (see Pyrogallol)				
Pyrogallol, 100-lb. dms., 1,000-lb. lots, divd.	13.70	-		

Quassia chips. ....	.57	-		
Quinacridone maroon, dms., fr. aid.	20.75	-		
rod dms., fr. aid.	17.75	-		
scarlet, dms., fr. aid.	21.76	-		
violet, dms., fr. aid.	21.76	-		
Quinco seed, bgs.	1.70	-		
Quinidine sulfate, USP, 100-oz. dms., 2,000 oz. or more.	4.20	-		
Quinine hydrochloride, NF, 1,000-oz. dms., 2,000 oz. or more.	2.40	-		
Quinrino sulfate, USP XVIII, 1,000-oz. dms., 2,000 oz. or more.	2.45	-		
Quinoline, dms., 11. fr. equiv.	1.49	-		
tanks, same basis.	1.43	-		

R salt tech., 304 molecular wt.	2.12	-		
Racemethionine, USP, 50-250 kilos.	6.50	-		
250-500 kilos.	6.80	-		
500 or more kilos.	6.90	-		
rad grade, 99% min.	1.07	-		
Rapeseed oil, dms. ....	.33	-		
Rauwolfia serpentina root, powd., bgs.	22.00	-		
dms.	40.00	-		
Red cambrine No. 40, 400 cambrine No. 40. ....	.40	-		
Red prednisolone (see Merguric oxide, red).				
Reserpine, USP, crystal, ....	.96	-		
Resorcinol tech., bgs., 11. works.	3.96	-		
divd.	3.80	-		
Resorcinol USP, c.i. dms., 50 kilos or more, works.	5.90	-		
powd. dms., same basis.	6.28	-		
Resorcinol monosulfate, dms., fr. aid.	1.98	-		
bgs. or more.	1.68	-		
Rhodamine red toner, polydisperse, PMA, dms., works.	11.50	-		
tongetated, PTMA, dms., works.	10.25	-		
Rhodol, 25-R.	1.05	-		
syn. dms. ....	.81	-		
Rhubarb root, India, whole, bgs. ....	.40	-		
powd., bgs.45	-		
Riboflavin, USP, 25 kilos, divd.	45.00	-		
Riboflavin, USP, 25 kilos, divd.	25.00	-		

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CHEMICAL PRICES

WEEK ENDING AUGUST 15, 1981

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CMR MARKETPLACE

CHEMICAL MARKETING REPORTER'S CLASSIFIED ADVERTISING SECTION

COPY DEADLINE: Wednesday Noon preceding date of publication.

RATES/Classified Ads: \$57.75 for 36 words or less; \$9.75 for each additional six words or fraction. No display. First two words printed in bold face type. Non-display advertisements payable in advance, except for contract customers (not subject to agency commission).

REPLIES: Send replies to classified ads with box numbers to CHEMICAL MARKETING REPORTER, 100 Church St., New York, NY 10007-2894.

INFORMATION: For further classified advertising information, call 212/732-9820.

CHEMICALS OFFERED

Overpack Drums 55 gallon used steel drums with rings and covers. Can hold a 55 gallon drum. Tel: 614-658-9223 or 888-9593 Telex 05-831845.

CHEMICALS WANTED

Active Buyer of surplus chemicals, pigments, dyes, resins, waxes, plastics etc. Call toll free 1-800-831-3337 or 617-829-8735. Dair Polymer Corp. Chemical Div. 17 Industrial Drive, Holden, MA 01520.

All Surplus — Chemicals — Resins — Oils — Colors — Solvents — Plasticizers — Specialties — Intermediates — Bought by: Rambo Chemical Co., Inc. 62 Vesey Street, P.O. Box 5187, Newark, NJ 07105. Phone: (201) 595-7774.

Cash For your surplus chemicals, resins, colors, pharmaceuticals, dyes, other raw materials, by products, waxes, resins, and oil-soluble materials. Morgan Chemicals Inc., 5500 Main Street, Williamsport, NY 14221 (716) 832-4000; Telex 819133.

Realize Top Value from the sale of your surplus chemicals. We buy surplus chemicals, plastics, resins, waxes, etc. Bonner Chemical Co., P.O. Box 484, Fair Lawn, NJ 07410. Phone: (201) 781-2448; Telex: 13-0434.

Resin Corp. will buy your surplus chemicals, resins and resin raw materials — prime or off-specification. Resin Corp., P.O. Box 63, 1640 W. Blomfield St., Linden, NJ 07036. (201) 882-8787.

Surplus Chemicals: Wanted, high prices paid for surplus chemicals, resins, pharmaceuticals, colors, plasticizers, solvents, waxes, etc. Prompt and efficient service. Try us for better prices. Chemicals Inc., 107-27 180th Street, Jamaica, N.Y. 11433. (718) 556-0400-01.

Surplus Wanted: Chemicals, pharmaceuticals, dyes, solvents, pigments, waxes, other raw materials. Over 55 years service Chemical Services Div., P.O. Box 848, 97-08 Ongly St., Rockville Centre, NY 11571. (516) 538-5533.

Wanted — Phenylmercuric borate in sealed containers, any quantity up to 100 kg. Altano Inc., Mrs. DiCicco, 616-54-7677.

We Buy Surplus chemicals, colors, resins, solvents, plasticizers by-products, etc. Over 50 years of service to industry. Equilon Color & Chemical Co., Inc. 86 Roosevelt Ave., Dept. C.P.O. Box 1029, Valley Stream, N.Y. 11582. (516) 781-4448.

Your Surplus is our Inventory. We buy all chemicals, pigments, resins, solvents, plasticizers and pharmaceuticals. Prompt inspection and cash terms on each offering. Pyram Chemical Sales Co., 1035 Virginia Drive, Fort Washington, PA 19034. (215) 642-8282.

EQUIPMENT OFFERED

Disassembler has used process equipment for sale: Columns, Exchangers, Heaters, Reactors, Pressure Vessels, Tanks, etc. Midwest Steel Co., Inc. 9825 Moore Road Houston, Texas 77075. 713/991-7843.

For Sale — Completely reconditioned. Sharples P-3000 Super D centrifuges. Call for information, prices, 318-251-7200.

Tanks For Sale: Blue Glass & Epoxy Lined Tanks up to 37,000 gal. ea. from Milwaukee and Detroit. Sacrifice price! Free list: Bravery Works, Box 1487, Milwaukee, WI 53201-1487. (414) 272-1702.

316SS Sharples 46" centrifuge, vapor light, 100HP varied speed, auto blow, 0-670RPM basket speed. Reg's packaging equipment with scale, pinch bottom closure and conveyor; 20 cu. ft. w/o double cone, glass lined vacuum dryer, excellent cond.; 42"x32" Bandvik 88 belt conveyor with new spare belt. Call Bill Dawson (803) 798-7180.

POSITIONS OFFERED

Chemical Sales. Midwest sales position for fine chemicals to food, pharmaceutical and industrial accounts. Some distributor/direct accounts. Degree required, chemistry preferred. Two to five years sales experience, 50% travel. Competitive salary, excellent benefits, full travel and expense, company car or car allowance. Replies held confidential. Please submit a full resume of job history and qualifications to Box CMR-711.

POSITIONS WANTED

Former President International chemical trading company with vast experience. Well known major contacts throughout world. Reply CMR Box 712.

SERVICES OFFERED

Custom solids packaging and distribution in the port of Mobile, Multi-wall bags, bulk bags, drums and bulk, blending, repackaging and warehousing. Rail and truck facilities. Contact: Philip Hahn, SEAPAC, Bldg. 14A, Brookley Complex, Mobile, AL 36615, 205/433-3641.

CHEMICAL IMPORTS

Continued from 31

Universal Transcontinental 148 drms (14,645 lbs) (Rijeka Express) Rijeka, 6/29.

SULFATHIAZOLE Fluvine Int 360 drms (43,862 lbs) (Yu Ho) Shanghai, 7/2.

SULFAMIC ACID Alfa Intermodel Transport 1,760 drms (88,889 lbs) (Ming Universal) Keelung, 7/3.

Crysal Chemicals & Supply 32 drms (1,933 lbs) (Kohn Express) Greenock, 6/30.

TARTARIC ACID Joseph C Murray 432 bgs (44,004 lbs) (Sea Land Adventur) Algiers, 7/2.

Sigma Chemical 6 drms (708 lbs) (Kohn Express) Bremen, 6/30.

TERTIARY BUTYL BENZALDEHYDE Orion 79 pkg (34,484 lbs) (Atlantic Song) Le Havre, 7/1.

78 drms (34,484 lbs) (Atlantic Song) Rotterdam, 7/1.

TETRAHYDROXYNITROBENZENE Universal Transcontinental 201 drms (24,372 lbs) (Hannoverland) Lieben, 7/1.

11 TETRAFLUOROETHOXYNITROBENZENE Crescent Chemicals 1 bx (2 lbs) (Kohn Express) Bremen, 6/30.

TETRASODIUM PYROPHOSPHATE Browning Chemical 800 bgs (46,327 lbs) (Hannoverland) Lieben, 7/1.

TITANIUM DIOXIDE Blue Bell Chemical 800 bgs (41,502 lbs) (American Lynx) Rotterdam, 7/10.

Durr Marking 880 bgs (44,137 lbs) (Sea Land Adventur) Algiers, 7/2.

2,400 bgs (124,802 lbs) (Sea Land Voyager) Rotterdam, 7/3.

Goodyear Int'l 1,440 bgs (82,144 lbs) (Sea Land Adventur) Algiers, 7/2.

N. L. Ind 6,400 bgs (327,803 lbs) (Allanito Companio) Gothenburg, 6/29.

7,200 bgs (368,891 lbs) (Ever Lytle) Hamburg, 7/1.

57 Tonnage 680 bgs (44,137 lbs) (Sea Land Adventur) Algiers, 7/2.

Superior Materials 1,800 bgs (83,003 lbs) (American Lynx) Rotterdam, 7/10.

Tioxide 2,400 bgs (124,802 lbs) (American Georgia) Rotterdam, 7/10.

Kemira 840 bgs (334,048 lbs) (Stefan Starynski) Bremen, 7/1.

780 bgs (38,580 lbs) (Stefan Starynski) Bremen, 7/1.

320 bgs (38,174 lbs) (Stefan Starynski) Bremen, 7/1.

Hulstey Raw Materials 700 bgs (39,590 lbs) (Stefan Starynski) Bremen, 7/1.

N. L. Ind 5,400 bgs (278,345 lbs) (Ever Lytle) Antwerp, 7/1.

Durr Marking 1,800 bgs (83,002 lbs) (Sea Land Voyager) Rotterdam, 7/3.

TOLUENE DIISOCYANATE Boflex Alitalia Surveys 55 drms (28,827 lbs) (Kohn Express) Greenock, 6/30.

Lesclaco 2 ink (78,939 lbs) (Atlantic Song) Bremen, 7/1.

TRIMETHYL ORTHOFORMATE Crescent Chemicals 9 bgs (163 lbs) (Kohn Express) Bremen, 6/30.

TRIMETHYL PHOSPHATE Order 1,280 bgs (73,546 lbs) (Atlantic Company) Liverpool, 6/30.

TRISODIUM PHOSPHATE New China Trdg 700 bgs (38,044 lbs) (American Maine) Kobe, 7/1.

U-Z

ULTRAMARINE PIGMENT Whiteaker Clark & Daniels 940 bgs (36,720 lbs) (American Ohio) Flintkote, 7/3.

VANADIUM PENTOXIDE Almet 160 drms (73,910 lbs) (Yu Ho) Heikang, 7/2.

VANILLA La Preteride 1,080 cs (10 lbs) (Ever Guide) Kingston, 7/3.

VINYLIN Order 360 drms (46,862 lbs) (Yu Ho) Dairin, 7/2.

VITAMIN ASCORBIC ACID Amalgamated Metals 880 kgs (42,878 lbs) (American Maine) Kobe, 7/1.

VITAMIN B12 MCO Transport Warehouse 300 bgs (11,484 lbs) (American Georgia) Rotterdam, 7/10.

VITAMIN B6 Craymor Chemical 80 drms (5,116 lbs) (Yu Ho) Shanghai, 7/2.

VITAMIN B12 THIAMINE Daniel F Young 40 drms (2,846 lbs) (Yu Ho) Shanghai, 7/2.

VITAMIN B12 MCO Transport Warehouse 300 bgs (11,484 lbs) (American Georgia) Rotterdam, 7/10.

Order 208 mix (10 lbs) (Atlantic Song) Le Havre, 7/1.

YEAST Yeastle 400 drms (44,886 lbs) (Ever Lytle) Le Havre, 7/1.

300 drms (33,864 lbs) (Aldebaran) Le Havre, 7/2.

ZIRCONIUM DIOXIDE Ranson Metals 700 bgs (78,704 lbs) (Aldebaran) Rotterdam, 7/1.

ZIRCONIUM OXIDE Magnesium Elektro 180 drms (40,873 lbs) (Kohn Express) Greenock, 6/30.

Acid Rain Bill Is Put on Hold

Prospects for Congress passing legislation to control acid rain pollution dimmed considerably last week as the House Energy and Commerce Committee put off action on the matter until September.

The postponement came after Republican opponents used stalling tactics to prevent the committee from beginning major work on the Acid Rain Deposition Control Act of 1986, which is co-sponsored by nearly half of the committee's 43 members.

Congress adjourned Friday for a three-week recess, returning September 8 with one month left in the regular 1986 session and acid rain bills still awaiting action by Energy and Commerce and the Senate Environment Committee.

"We're working against the clock," said Rep. Henry Waxman, (D-Calif.), the chief sponsor of the bill to require a 37 percent reduction in sulfur dioxide emissions from coal-fired boilers by 1997.

The proposal, which is strongly opposed by

manufacturers, would also require cuts in nitrogen oxide emissions from vehicles and industrial plants.

Peter Sipple, manager of energy policy for Air Products and Chemicals, Inc., has testified that the bill would cause major industry expenses from fuel switching, increased transportation costs, and capital costs for installation of scrubbers.

Speaking on behalf of the National Association of Manufacturers, Mr. Sipple has said the bill would impose large costs of manufacturers both through higher prices for electricity and through costs imposed directly on industrial boilers and industrial processes.

Although Rep. Waxman refused to pronounce his bill dead for the year, he acknowledged last week that "it's discouraging with the time running out."

When the Energy and Commerce Committee resumes consideration of the legislation, opponents are expected to continue their slowdown by offering time-consuming amendments and objecting to the committee meeting while the House is under the five-minute rule.

Environmentalists, who have been lobbying for the bill, were also discouraged because they hoped to see the measure ready for floor debate by early September.

"It will pass this committee, but it will be hard work getting it to the floor on time," said a spokesman for the National Audubon Society. "I don't think we'll see a bill on the Senate floor unless the House acts first," he said.

A spokesman for US Public Interest Research Group, said the best chance of getting the legislation through Congress this year may be a "jame duck" session after the November elections, a prospect that has been raised by House Speaker Thomas P. O'Neill (D-Mass.).

Rep. Waxman estimates the bill will cost industrial coal users and utility customers about \$3 billion per year to comply with the emissions reductions.

But Midwestern congressmen say that while the measure limits increases in residential bills to 10 percent per year, electricity rates will rise higher in some states and industries will be hurt because there is no cap on how much they might be required to pay.



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SPARKLER 460 sq. ft. 8/8 Horiz. tank semi.
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Micro-Poly (1) 84 8/8 8/8 w/cnng. Jct.

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COATINGS & PLASTICS

Continued from Page 29

by one source to be about 75 million pounds per year.

Demand for the resins has gone down steadily over the past two years; in 1985, it fell 7 percent from the previous year, to 82 million pounds. It is expected to fall further this year.

Producers report that Taiwan, Korea and Japan have adopted aggressive marketing policies, and are said to be selling the resins at from 2 to 2.5 cents per pound cheaper than domestic producers. This has exerted some pressure on pricing, particularly in coastal areas. Sources say that imported material so far has been confined to coastal regions, feeding out of warehouses into localized areas 300 to 400 miles inland; they do not affect the central regions of the US, but, are still expected to satisfy 8 million pounds of domestic SAN demand this year.

On the positive side, sources see SAN encroaching on polycarbonate in some applications, and higher than GNP growth is expected in the compounding and medical molding market segments.

PRIME PIGMENTS

IRON OXIDE — Soft prices and overcapacity continue to dominate the iron oxide market. Sources say that selling prices have declined an average of 10 percent from last year's levels. Synthetic reds, blacks and yellows are listed by various producers at 60c to 70c per pound, 65c to 77c per pound and 80c to 71c per pound, respectively. Natural grades are said to be listed at from 30c to 45c per pound, depending on quality.

Although one major producer sees capacity and demand as being well-balanced, smaller producers complain that capacity still far outstrips demand. One victim of this overcapacity, Reichard-Coulson Inc., a firm which produced iron oxide pigments exclusively, went bankrupt earlier this year.

Although one major supplier feels that discounts have largely dried up, except in the case of largest volume customers, smaller

producers complain that current discounts of 10 to 25 percent off selling prices (already substantially lower than list prices) have been common for large-volume buyers of both synthetic and natural types.

Previous attempts to increase prices have failed, with a serious effect on profits — in the past, producers have undermined price increases moves through competitive discounting, two markets sources explain. The last effective price increase for synthetic iron oxide was in 1985; one producer notes that prices for natural oxides have not changed in the past three years.

Imports have played a role in depressing prices, sources relate, particularly in the synthetic pigment and magnetic tape segments of the market. For the past several years, Japanese and other off-shore producers effectively moved the magnetic tape market segment offshore. US customers were reluctant to accept price increases when so much cheaper material was available.

Producers now see some signs of price stabilization; at least one producer feels that prices are currently at the bottom of an upward curve.

A decrease in the import level is expected, in part due to the change in the yen value, and is expected to move some magnetic iron oxide production back to the US. Illustrating this move, Pfizer brought back on line a mothballed magnetic iron oxide plant in Val Paraiso, Ind. this Spring.

Demand in the mature synthetic and natural iron oxide pigment market is expected to continue to grow at the rate of 2 percent per year, as it has for the past 10 years. Demand for synthetic oxide pigments by the paint industry is said to be up by more than 2 percent this year, reflecting paint industry strength.

The magnetic tape segment had been showing high growth before most of it moved offshore. However, one source feels that a trend away from using iron oxide in magnetic computer tape, combined with a move away from computer tape in general, may have some effect on future demand.

In the transparent oxide coatings segment, producers say that July price increases have held; demand is strong, and growth will depend on the US auto industry.

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CHEMICAL PROFILE

a-Methylstyrene

AUGUST 18, 1986

SUPPLY PRODUCER

PRODUCER	CAPACITY*
Allied, Frankford, Pa.	25
BTL, Blue Island, Ill.	4.5
Georgia Gulf, Bound Brook, N.J.	5
Georgia Gulf, Plaquemine, La.	10
Texaco, El Dorado, Kan.	2.5
USX, Haverhill, Ohio	32
Total	79

"Millions of pounds annually of alpha-methylstyrene (AMS) recovered as a byproduct of phenol-acetone operations. Allied and USX can produce refined, 99 percent pure material. Georgia Gulf upgraded its facility in July and now has the option of producing fully refined material. The other producers make semi-refined, or 95 percent pure material. BTL acquired its AMS facility from Clark Chemical Corporation, in October 1985. Georgia Gulf restarted its Bound Brook phenol-acetone facility last February after a shutdown of one year. The company brought on 2 million pounds of additional capacity at Plaquemine in July 1985 in conjunction with expanded phenol-acetone output at the site. Texaco acquired Getty's El Dorado unit in a July 1984 merger. USX reduced its annual capacity by 6 million pounds when it enhanced its phenol yield at the Haverhill unit in April 1985. Amoco produces more than 34 million pounds of AMS annually as part of its continuous process for the manufacture of the company's proprietary polymer, "Resin 18." Profile last published 8/29/83; this revision 6/18/86.

DEMAND

1985: 48 million pounds; 1986: 49 million pounds; 1990: 54.5 million pounds.

GROWTH

Historical (1976-1985): 2.2 percent per year; future: 2.5 percent per year through 1990.

PRICE

Historical (1956-1986): High, 44c. per pound of refined product, tanks, works; low, 12c. per pound, same basis. Current: 28c. per pound same basis.

USES

ABS resins, 38 percent; adhesives and waxes, 13 percent; polyester resins and miscellaneous, 9 percent; exports 40 percent.

STRENGTH

ABS resins are a key growth area for AMS with growth pegged around 3 percent annually. Export values have firmed along with the strengthening dollar.

WEAKNESS

The entry of Georgia Pacific as a producer of 99-percent-purity material adds a potential of 8 million pounds of supply to the refined market. Prior to Georgia Gulf's upgrade, supply totaled 57 million pounds with a demand of approximately 45 million pounds in 1985.

OUTLOOK

ABS resins are expected to grow by 3 percent annually while all other AMS end uses are pegged for 2 percent annual growth for the next five years. While AMS is a byproduct of larger and more essential acetone-phenol operations its status may improve under the following scenario: New phenol-acetone plants produce little if any AMS and debottlenecking efforts tend to reduce AMS output. This could lead to tighter supplies worldwide, and improved returns on exports.

BOOKSHELF

Petrochemical Who's Who

The DeWitt & Co. world petrochemicals directory* is bigger and better this year. The Houston consulting and market research firm has put out the fourth edition of its directory in two volumes, one a commercial edition and the other an information services edition. Primary reason for separating the two editions is to make the directory more compact. There is no overlapping of individual listings between the two editions, DeWitt says.

The commercial edition of the directory is designed as a tool for commercial people in the petrochemical industry and puts emphasis on those who have authority to conduct business. The volume includes more than 2,000 company locations and over 4,000 names of individuals active in the international, commercial petrochemical business.

The information services edition is designed for use by people in the consulting, planning and market development end of the petrochemical business. Again, listings include over 2,000 company locations and more than 1,500 names of individuals active in the international petrochemical business.

In the back of each volume is an alphabetical listing by individual's name, plus useful data on yield factors for converting basic petrochemicals to derivatives, properties of selected chemical compounds, energy conversion factors and light hydrocarbon fuel values and useful constants and conversions.

*WHO'S WHO IN WORLD PETROCHEMICALS. Two volumes. Paper. 422 pages. 8 1/2 X 11 inches. DeWitt & Co., 16800 Greenspoint Park, North Atrium, Suite 120, Houston, Tex. 77060-2366. \$75 per volume in the US; \$80 per volume outside the US.

Chemicals Handbook

This handbook* of chemical production processes contains current information and descriptions of the various technologies involved in the production of major organic and inorganic chemicals and polymers.

Thirty-nine specialists have contributed authoritative material that provides a detailed treatment of the world's licensable chemical process production technologies. The contributors are engineers and scientists from the nineteen different firms that are the licensors of the individual processes, including companies from the US, the UK, the Federal Republic of Germany, Japan and the Netherlands.

Each process chapter examines the process chemistry and thermodynamics involved, the product and byproduct and hyproduct specifications, wastes and emissions, and the locations and specifications of all plants. Both capital and operating costs are given for each process, and a general description of the process typically includes charge and product yield, purity and a simplified flow diagram.

*HANDBOOK OF CHEMICALS PRODUCTION PROCESSES. Edited by Robert A. Meyers. Cloth. 6 1/2 X 9 1/2 inches. 464 pages. McGraw-Hill Book Company, 1221 Avenue of the Americas, New York, N.Y. 10020. \$68.50.

Patent Law

This practical volume* explains current patent law without resorting to confusing legal jargon. It is written specifically for engineers and other technical people who are involved in developing and using technology commercially. However, since it is an overview of protecting intellectual property, it can be used by anyone who is not limited to any particular industry. The author explains the underlying reasons and philosophy of having a patent system. He outlines the crucial distinctions between patents, trademarks, copyrights and trade secrets.

*PATENT LAW FOR THE NON-LAWYER. By Burton A. Amernick. Cloth. 8 1/2 X 11 1/2 inches. 177 pages. Van Nostrand Reinhold, 115 Fifth Avenue, New York, N.Y. 10003. \$34.95.

JOBS & PEOPLE



John C. Jadel, who has been named vice-president for worldwide planning and development for Akzo Chemie.

CRAIG R. KENWORTHY has been named technical representative for the Mid-Atlantic area by S.P. Morell & Co. JOHN M. BATT has been appointed marketing manager for Alchem Inc.'s "Forex" brand of halon fire extinguishants. FRANK J. WUERTZ has been appointed director of business planning for the Specialty Chemicals Division of Lonza Inc.

DAVID M. TRUAX has been named vice-president of sales for Betz PaperChem Inc. BRUCE E. STREETER has been appointed technical manager of insulated glass sealant in the Morton Chemical Division of Morton Thiokol Inc. THOMAS C. CERAMI has been named branch manager in Slurceport, La., for industrial gas division sales at Air Products & Chemicals Inc.

ANDREW J. POLO has been appointed corporate traffic manager at Degussa Corporation. DAVID PASHALIDIS has been appointed manager of investor relations at Dow Chemical Company.



C. Kenworthy J. Batt

Eastman Chemical Fills Two International Posts

Eastman Chemical Products Inc. has appointed James L. McGee and James C. Haas to new international marketing posts.

Mr. McGee has been named marketing manager for Asia and Australia. He was previous district marketing manager for Eastman Chemical International Ltd. in Hong Kong.

Mr. Haas, who succeeds Mr. McGee as Hong Kong district marketing manager, was previously an international marketing specialist.



J. McGee J. Haas

MICHAEL D. MILLER has been appointed Midwest account executive for A-C Polyethylene, a unit of Allied-Signal Inc. RALPH G. COKER has been named general manager of Coastal Refining & Marketing Inc.'s Corpus Christi, Tex., refinery. THOMAS BITTNER has been appointed



F. Wuerz D. Truax

vice-president and general manager of Polychrome Corporation's European operations.

DR. RONALD W. SCHMITT has been named senior vice-president and chief scientist for General Electric Company. BRUCE G. KENDRICK has been named polypropylene business manager at El Paso Products Company and ED N. THEIS has been ap-



William J. Reid, who has been named president and chief executive officer of Sungen Technologies Corporation, Palo Alto, Calif. Mr. Reid is a 30-year veteran of the chemical industry.

pointed business manager for polyethylene.

NUNZIO F. POLLIFRONE has been named monomer production supervisor in the ICI advanced materials group of ICI Americas Inc. RONALD J. MATTOZA has joined the marketing department of the ICI agricultural products group as a technical sales representative for the Pacific Southwest district. JOSEPH FIORE III has been appointed development chemist for Rubicon Chemicals Inc., an ICI unit, and LOTHAR KLINCKE has been named technical service representative for Rubicon.

MICHAEL F. HOHEN has been appointed director of pension fund investment services at Union Carbide Corporation. ROBERT J. DELUCCIA has been named corporate director and division vice-president of the newly formed ethical medicines strategy group of Sterling Drug Inc. PAUL J. CLARK has been elected treasurer of Penwalt Corporation.



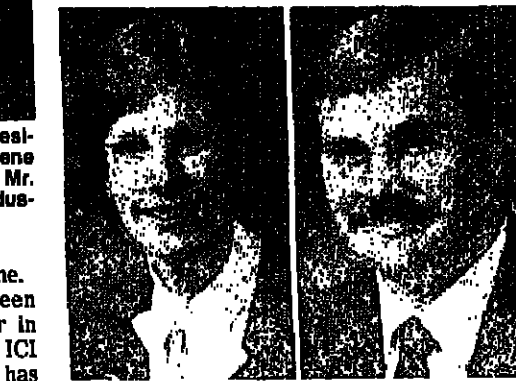
S. Streeter T. Cerami

Ralston Purina Names Two in Polymers Division

Ralston Purina Company has appointed Lucy G. McDonald market research analyst in its Polymer Division and Robert F. Hurst technical Sales Representative in the division.

Miss McDonald joined the company in 1978 in the Chow Division and transferred to the Protein Division in 1980.

Mr. Hurst joined the company's Raltech Science Service Division in 1977 and transferred to the Polymer Division in 1979. He was most recently field technical service engineer.



L. McDonald R. Hurst

KENT SNYDER has been named director of licensing at Marion Laboratories. JAMES B. LAUFENBERG has been appointed director of sales for the Wood Care Division and JOSEPH P. LACZ has been named director of pharmacology for Marion Labs.



A. Polo D. Pashalidis

KENNETH A. PREGLOW has been named director of commercialization and development at Enron Chemical Company.

K.N. ROBERTSON has been named vice-president for basic chemicals (Americas) at Exxon Chemical Company. J.R. LOWE has been named director of basic chemicals (Europe) and M.G. HANDFORD has been named worldwide vice-president of fertilizers.

MEETINGS CALENDAR

AUGUST 18, 1986

THIS MONTH

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS, Summer national meeting, Sheraton Boston Hotel, Boston, Mass., August 24-27.

LATER ON

AMERICAN CHEMICAL SOCIETY, 192nd annual meeting, Anaheim Convention Center, Anaheim, Calif., December 7-12.
AMERICAN MICROCHEMICAL SOCIETY, eastern analytical symposium, jointly with American Chemical Society and Society for Applied Spectroscopy, New York Hilton Hotel, New York, October 20-24.
AMERICAN PETROLEUM INSTITUTE, annual meeting, San Francisco, Calif., November 9-11.
ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS, 100th international meeting and exhibition, The Registry Hotel, Scottsdale, Ariz., September 15-18.
ASSOCIATION OF THE NON-WOVEN FABRICS INDUSTRY, eighth international conference and exhibition, Georgia World Congress Center, Atlanta, Ga., October 21-23.

CANADIAN CHEMICAL PRODUCERS ASSOCIATION, International symposium on transportation emergency response, Vancouver, B.C., Canada, September 14-18.

CHEMICAL GROUP, NATIONAL ASSOCIATION OF PURCHASING MANAGEMENT, Fall Conference, Marriott Pavilion Hotel, St. Louis, Mo., October 21-23.

CHEMICAL MARKETING RESEARCH ASSOCIATION, world chemical congress, jointly with the chemical marketing and economics division of the American Chemical Society, "The Chemical Industry: Where in the World is it Going?", Newport Resort Hotel, Newport Beach, Calif., September 7-10.

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, seminar on aerosol technology, Ramada Hotel O'Hara, Rosemont, Ill., October 27-29; 73rd annual meeting, Marriott's Harbor Beach Resort, Fort Lauderdale, Fla., December 7-11.

CHLORINE INSTITUTE, Fall meeting, The Homestead, Hot Springs, Va., September 21-25.

COMMERCIAL DEVELOPMENT ASSOCIATION, impact of mergers and acquisitions on the future of technology-driven corporations, Hershey Hotel, Hershey, Pa., October 28-29.

CONFERENCE BOARD, business outlook conference, Waldorf-Astoria Hotel, New York, September 24-25.

COUNCIL FOR CHEMICAL RESEARCH, annual meeting, Northwestern University, Evanston, Ill., September 28-30.

COUNCIL FOR RESPONSIBLE NUTRITION, annual meeting, "Health Messages: New Directions and New Opportunities," J.W. Marriott Hotel, Washington, D.C., September 7-10.

EUROPEAN PETROCHEMICAL ASSOCIATION, annual meeting, Monte Carlo, Monaco, September 28-October 1; distribution meeting, October 18-October 22.

FERTILIZER INSTITUTE, world fertilizer conference, "Global Trading Patterns," Hyatt Regency Hotel, San Francisco, Calif., September 14-18.

FERTILIZER ROUND TABLE, Sheraton Inner Harbor Hotel, Baltimore, Md., November 17-19.

FIRE RETARDANT CHEMICALS ASSOCIATION, Fall conference on proper processing and selection of flame retardants, Kona Hilton Hotel, Kona, Hawaii, September 18-22.

FRAGRANCE MATERIALS ASSOCIATION OF THE UNITED STATES, 10th international congress of essential oils, fragrances and flavors, Omni Shoreham Hotel, headquarters hotel, Washington, D.C., November 18-20.

K-88, 10th international trade fair for plastics and rubber, Düsseldorf, West Germany, November 6-13.

LATIN AMERICAN PETROCHEMICAL ASSOCIATION, sixth annual meeting, Rio Palace Hotel, Rio de Janeiro, Brazil, November 23-25.

NATIONAL ASSOCIATION OF CHEMICAL DISTRIBUTORS, 15th annual meeting, Flitz-Carlton-Naples Hotel, Naples, Fla., December 2-6.

NATIONAL PAINT & COATINGS ASSOCIATION, 9th annual meeting, Atlanta Hilton Hotel, Atlanta, Ga., November 3-5.

PULP CHEMICALS ASSOCIATION, 13th international news stores meeting, Waldorf-Astoria Hotel, New York, September 15-17.

SOCIETY OF CHEMICAL INDUSTRY, chemical industry medal dinner, Plaza Hotel, New York, October 15.

SOCIETY OF THE PLASTICS INDUSTRY, plastics symposium and conference - South, jointly with the Society of Plastics Engineers, Georgia World Congress Center, Atlanta, Ga., October 8-10.

SYNTHETIC ORGANIC CHEMICAL MANUFACTURERS ASSOCIATION, OSHA compliance trade fair and symposium, Intercontinental Hotel, New Orleans, La., September 25-26.

BUSINESS BRIEFS

CHOPTON & KNOWLES Corporation has introduced a non-silicone antifoaming agent designed for use in jet and beam dyeing machines, scouring ranges and other applications. The agent, called "Intraform", is described as non-toxic and is recommended for use in most chemical systems. A technical bulletin on the product is available from the company's Dyes & Chemicals Division in Charlotte, N.C.

DART & KRAFT company's Darted Manufacturing subsidiary has published a new brochure describing injection molding processes for "Kydex" liquid crystal polymer resins. The eight-page brochure discusses the processability of the resins on conventional injection molding machinery, with sections on resin handling, setup/shutdown procedures and part/mold design.

EASTMAN CHEMICAL PRODUCTS Inc. says laboratory evaluations have shown that the high reactivity and solvent activity of its "Ektaprop" EEP solvent make it well suited for use in electrostatic spray coatings. Controlling applications are adopting electrostatic spray to apply alkyd and epoxy coatings for improved transfer efficiency. Because these coatings are more viscous than conventional systems, they are used in a financial cost as an environmental benefit.

FREEMAN CHEMICAL Corporation has reached agreement with R. Hall Inc. under which Hall will become a marketing distributor for Freeman's resin products. Initially, the target market will be the room temperature cured unsaturated polyesters, for conversion into custom marble and reinforced plastic products, according to St. Louis, Mo.-based Hall.

FRITZSCHE DODGE & OLCOTT do Brasil has relocated its operations to a new building in Alphaville, a suburb of Sao Paulo. The new facility will "significantly expand" the production capacity of the company's flavor and fragrance operations in Brazil, the company says.